

MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

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Manufacturers' Record.

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ond-class matter.]

BALTIMORE, DECEMBER 2, 1909.

John T. Smith of Kerbey & Smith,
Austin, Texas, in a letter to the MANU-
FACTURERS' RECORD, writes:

Your journal is a wonderful aid to the
South in more ways, perhaps, than you are
aware of. I appreciate very much indeed
the information it brings me every week.

DATE AND NAME, PLEASE.

The New Orleans *Item* says that the
MANUFACTURERS' RECORD has been criti-
cising "the Progressive Union and
Southern commercial organization secre-
taries." When did the MANU-
FACTURERS' RECORD ever criticise the New
Orleans Progressive Union or any busi-
ness body in any other Southern city?
Let the *Item* answer that question or
to bag its head.

HASTENING THE DAY.

Hon. G. W. Koiner, Virginia's Com-
missioner of Agriculture and Immigration,
who has just returned to Rich-
mond from a trip to the West, writes
to the MANUFACTURERS' RECORD:

I have read your last issue of the MANU-
FACTURERS' RECORD with a great deal of
pleasure about the resources of the South.
My trip to the West convinces me more than
ever that the South is the coming country,
and some day is going to be the richest on
this great globe.

The MANUFACTURERS' RECORD knows
of no man who is doing more intelligent
and zealous work in hastening the day
of the South's coming than Commis-
sioner Koiner.

STILL SORE?

In his issue of last Saturday the Edi-
tor and General Manager of the *Daily*
Record of Columbia, S. C., shows that
a Special Commissioner from the neigh-

bborhood of Columbia to the Ogden Con-
ference at Richmond, Va., in April, 1903,
has not yet recovered from the effects
of publicity made of his ignorance about
the subject he was trying to discuss in-
telligently for the benefit of the people
of his State. Sorry. As to his refer-
ence to "a duality of editorship" of the
MANUFACTURERS' RECORD, he needs to
know that the editorial utterances of
the MANUFACTURERS' RECORD are with-
out regard to the personality of their
authors. As he knows, apparently to
his own chagrin, editorial writers for the
MANUFACTURERS' RECORD sometimes
write articles over their own signatures
for daily newspapers in South Carolina.

FORTUNATE FARMERS.

Farmers of the United States must
be feeling good, judging from the im-
mense figures cited by Secretary James
Wilson of the Department of Agricul-
ture in his report to the President. He
estimates the total value of farm prod-
ucts in 1909 as \$8,760,000,000. Some of
the quantities and values appear in the
following table:

Crop.	Quantity.	Value.
Corn, bus.	2,767,000,000	\$1,720,000,000
Wheat, bus.	725,000,000	725,000,000
Hay, tons.	64,000,000	665,000,000
Oats, bus.	984,000,000	400,000,000
Irish potatoes, bus.	367,000,000	212,000,000
Tobacco, lbs.	900,000,000	100,000,000
Barley, bus.	165,000,000	88,000,000
Flaxseed, bus.	25,767,000	36,000,000
Rice, lbs.	1,000,000,000	25,000,000
Rye, bus.	31,000,000	23,000,000

As noted by the MANUFACTURERS'
RECORD last week, cotton ranks second
in value among the crops of the country.
Secretary Wilson estimates its value,
with seed, at about \$850,000,000. This
estimate, we believe, is less than the
money that the crop will bring, and it
may be that the estimates of the values
of other crops may be too high. As it
is, however, with the values of cotton,
of sugar and its products, \$95,000,000,
and of animal products, \$3,000,000,000,
together with dairy and poultry prod-
ucts, added to the other values, shows
that in the past eleven years the farmers
of the country have been concerned
in producing \$70,000,000,000 of wealth
in one form or another. Good for the
farmers, and may they continue to en-
joy the prosperity that ought to be
theirs!

SOUTHERN GOLD.

Until gold was discovered in Cali-
fornia in 1849 the South had produced
practically all the gold of the country.
It is still yielding precious metals, and
the production of gold and silver in
1908, by States, is shown in the follow-
ing table:

States.	Gold.	Silver.
Alabama.....	\$41,200	\$200
Georgia.....	56,200	100
North Carolina.....	97,500	700
South Carolina.....	53,700	100
Tennessee.....	3,700	32,600
Texas.....	500	239,100
Virginia.....	3,600	200
Total.....	\$256,400	\$273,000
United States.....	94,560,000	28,050,600

But the South is doing better as a
cotton-grower than it has done as a
gold-miner in all history. Its cotton
fields yielded in the decade 1890-1908
values greater by \$2,500,000,000 than
all the gold mines of the whole world.

INVENTORY OF SOUTHERN PROGRESS AND PROSPECTS.

On the eve of the thirteenth decennial census the MANUFACTURERS' RECORD
ventures upon a forecast of the showing that the South will make in 1910 in
comparison with 1900 in the following table:

	1900.	1910.
Population.....	23,548,401	28,085,000
Density.....	29.1	34.7
Manufactures:		
Capital.....	\$1,153,002,368	\$2,214,000,000
Products.....	\$1,463,643,177	\$2,777,000,000
Cotton Mills:		
Capital.....	\$112,837,000	\$298,900,000
Spindles, active.....	4,453,729	11,325,000
Looms, active.....	112,806	244,000
Cotton used, pounds.....	747,744,066	1,310,000,000
Cotton-oil Mills:		
Number.....	369	850
Capital.....	\$34,450,000	\$105,000,000
Pig-iron made, tons.....	2,604,671	3,800,000
Coke made, tons.....	5,799,384	10,786,000
Lumber products, value.....	\$188,114,000	\$440,000,000
Lumber cut, feet.....	13,639,107,000	21,000,000,000
Farm products, value*.....	\$1,271,654,000	\$2,550,000,000
Cotton Crop:		
Bales.....	9,003,296	11,500,000
Value, without seed.....	\$339,958,000	\$900,000,000
Grain Products, bushels*:		
Corn.....	476,655,808	735,820,000
Wheat.....	93,358,836	60,781,000
Oats.....	83,998,256	50,400,000
Mineral products, value.....	\$114,945,099	\$358,000,000
Coal mined, tons.....	49,048,059	113,400,000
Iron ore mined, tons.....	4,707,449	7,000,000
Petroleum, barrels.....	17,093,973	31,200,000
Phosphate mined, tons.....	1,489,907	2,592,000
Railroad mileage.....	52,594	69,400
Exports, value.....	\$484,644,177	\$650,000,000
National Banks:		
Resources.....	\$516,798,036	\$1,251,000,000
Capital.....	\$86,371,980	\$175,000,000
Individual deposits.....	\$264,938,294	\$670,000,000
Other banks, deposits.....	\$254,439,168	\$716,000,000
Common schools, expenditures.....	\$26,535,848	\$56,000,000
Property, true value.....	\$13,863,073,140	\$21,500,000,000

*The figures are for the year preceding the census year.

The estimate for 1910 is based on the rates of increase in the many lines
viewed against the broader background of nearly thirty years. Definite facts
that the South has made its own in the longer period, that is, between 1880 and
1909, are epitomized in the following exhibit of increases:

Population, from 16,369,960 to 27,437,809, or by 11,067,849, equal to 67.6
per cent.

True value of property, from \$7,505,000,000 to \$21,211,179,600, or by \$13,706,-
179,600, equal to 182.3 per cent.

Capital in manufacturing, from \$257,244,564 to \$2,110,000,000, or by \$1,852,-
755,436, equal to 720.2 per cent.

Products of manufacturing, in value, from \$457,454,777 to \$2,675,000,000, or by
\$2,217,545,223, equal to 484.8 per cent.

Capital in cotton mills, from \$21,000,000 to \$281,375,000, or by \$260,375,000,
equal to 1239.9 per cent.

Active spindles in cotton mills, from 667,754 to 10,650,001, or by 9,982,247,
equal to 1494.9 per cent.

Active looms in cotton mills, from 14,323 to 221,569, or by 207,246, equal
to 1446.9 per cent.

American cotton used by the mills, from 108,694,989 pounds to 1,236,011,000
pounds, or by 1,127,316,011 pounds, equal to 1037.1 per cent.

Capital in cotton-oil mills, from \$3,800,000 to \$96,000,000, or by \$92,200,000,
equal to 2426.3 per cent.

Pig-iron produced, from 397,301 long tons to 2,326,792 tons, or by 1,929,491
tons, equal to 485.6 per cent.; or, using figures of 1907, before the industrial
drawback of 1908, from 397,301 tons to 3,445,221 tons, or by 3,047,920 tons,
equal to 767 per cent.

Coke made, from 372,436 short tons to 6,453,617 tons, or by 6,081,181 tons,
equal to 1632.8 per cent.; or, upon the 1907 basis, from 372,436 tons to 9,289,471
tons, or by 8,917,035 tons, equal to 2394 per cent.

Value of lumber products, from \$39,000,000 to \$290,000,000, or by \$251,000,000,
equal to 643 per cent.; or, upon the 1907 basis, from \$39,000,000 to \$380,000,000,
or by \$341,000,000, equal to 874.3 per cent.

Lumber cut, from 3,410,294,000 feet to 16,163,000,000 feet, or by 12,752,706,000
feet, equal to 373.7 per cent.; or, upon the 1907 basis, from 3,410,294,000 feet to
19,303,983,000 feet, or by 15,893,689,000 feet, equal to 466 per cent.

Value of farm products, from \$660,000,000 to \$2,550,000,000, or by \$1,890,000,-
000, equal to 286.3 per cent.

Bales of cotton marketed, from 5,723,934 to 13,071,000, or by 7,347,066, equal
to 128.3 per cent.

Value of cotton crop, not including seed, from \$312,303,000 to \$647,045,000, or by \$334,742,000, equal to 107.1 per cent.

Corn, wheat and oats raised, from 577,328,440 bushels to 847,019,000 bushels, or by 269,690,560 bushels, equal to 46.4 per cent.

Value of mineral products, from \$13,817,930 to \$230,311,000, or by \$216,493,070, equal to 1566.7 per cent.; or, upon the 1907 basis, from \$13,817,930 to \$286,818,347, or by \$273,000,417, equal to 1976 per cent.

Coal mined, from 6,037,003 short tons to 82,822,851 tons, or by 76,785,848 tons, equal to 1271.9 per cent.

Iron ore mined, from 842,454 long tons to 5,540,787 tons, or by 4,698,333 tons, equal to 557.7 per cent.

Petroleum produced, from 179,000 barrels to 28,292,537 barrels, or by 28,113,537 barrels, equal to 15,683.5 per cent.

Phosphate marketed, from 190,763 long tons to 2,373,028 tons, or by 2,182,265 tons, equal to 1143.9 per cent.

Aggregate length of railroads, from 20,612 miles to 67,866 miles, or by 47,254 miles, equal to 228.8 per cent.

Exports of merchandise from Southern ports, from \$264,905,753 to \$619,278,874, or by \$354,373,121, equal to 133.7 per cent.

Aggregate resources of National banks, from \$171,464,172 to \$1,777,632,565, or by \$1,006,168,393, equal to 586.2 per cent.

Capital of National banks, from \$46,688,930 to \$168,252,795, or by \$121,563,865, equal to 260.3 per cent.

Individual deposits in National banks, from \$64,733,249 to \$598,546,722, or by \$533,813,473, equal to 824.6 per cent.

Deposits in State, savings and private banks and in loan and trust companies, from \$83,444,576 to \$624,752,437, or by \$541,307,861, equal to 648.4 per cent.

Expenditures for common schools, from \$9,796,040 to \$44,035,732, or by \$34,239,692, equal to 349.5 per cent.

In some cases the figures as of 1909 are of 1908 or earlier. As they stand they show the strength of the South in the facts that, with a population less by about 4,000,000 than the total population of the United States in 1860, the South has wealth greater by nearly \$6,000,000,000 than the wealth of the whole country fifty years ago, and that, with a population but 2,000,000 greater than half the population of the United States in 1880, the South is producing about half as much in manufacturing as the whole country produced in that year; has about the same spindle and loom equipment in its cotton mills and \$72,000,000 more capital in that industry; it is making nearly as much pig-iron and more than twice as much coke as the country made thirty years ago. The South's lumber cut has gone 1,000,000,000 feet a year beyond the 1880 cut in the United States; its farm products have a value \$300,000,000 greater, and its annual production of coal and petroleum is in excess of the country's production in 1880. In that year \$78,004,687 spent for common schools in the United States averaged less than \$1.56 for each man, woman and child of the population of 50,155,783. Today the South is spending close to \$50,000,000 annually upon its common schools, an average of \$1.82 to each of the 27,438,000 of the population.

These striking facts suggest, for purposes of comparison with the South, some reference in round numbers to the advance made by the whole country since 1880 as follows:

Population, from 50,156,000 to 88,680,000, or by 38,524,000, equal to 76.8 per cent.

True value of property, from \$43,642,000,000 to \$132,776,000,000, or by \$89,134,000,000, equal to 204.2 per cent.

Capital in manufacturing, from \$2,790,000,000 to \$16,100,000,000, or by \$13,310,000,000, equal to 477 per cent.

Products of manufacturing, in value, from \$5,369,000,000, to \$20,200,000,000, or by \$14,831,000,000, equal to 276.2 per cent.

Capital in cotton mills, from \$208,000,000 to \$705,000,000, or by \$497,000,000, equal to 238.9 per cent.

Active spindles in cotton mills, from 10,653,000 to 27,780,000, or by 17,127,000, equal to 160.8 per cent.

Active looms in cotton mills, from 226,000 to 593,000, or by 367,000, equal to 162.4 per cent.

American cotton used by the mills, from 750,000,000 pounds to 2,436,000,000 pounds, or by 1,686,000,000 pounds, equal to 224.8 per cent.

Pig-iron produced, from 3,836,000 long tons to 15,936,000 tons, or by 12,100,000 tons, equal to 315.4 per cent.; or, upon the 1907 basis, from 3,836,000 tons to 25,781,000 tons, or by 21,945,000 tons, equal to 572 per cent.

Coke made, from 3,338,000 short tons to 26,033,000 tons, or by 22,695,000 tons, equal to 679.9 per cent.; or, upon the 1907 basis, from 3,338,000 tons to 40,779,000 tons, or by 37,441,000 tons, equal to 1121.6 per cent.

Value of lumber products, from \$233,000,000 to \$698,000,000, or by \$465,000,000, equal to 195.2 per cent.; or, upon the 1907 basis, from \$233,000,000 to \$800,000,000, or by \$567,000,000, equal to 243.4 per cent.

Lumber cut, from 18,087,000,000 feet to 33,224,000,000 feet, or by 15,137,000,000 feet, equal to 82.5 per cent.; or, upon the 1907 basis, from 18,087,000,000 feet to 40,256,000,000 feet, or by 22,169,000,000 feet, equal to 122.5 per cent.

Value of farm products, from \$2,212,000,000 to \$8,760,000,000, or by \$6,548,000,000, equal to 296 per cent.

Corn, wheat and oats raised, from 2,633,000,000 bushels to 4,475,000,000 bushels, or by 1,842,000,000 bushels, equal to 70 per cent.

Value of mineral products, from \$455,000,000 to \$1,596,000,000, or by \$1,141,000,000, equal to 250.9 per cent.; or, upon the 1907 basis, from \$455,000,000 to \$2,069,000,000, or by \$1,614,000,000, equal to 354.7 per cent.

Coal mined, from 71,500,000 short tons to 405,800,000 tons, or by 334,300,000 tons, equal to 467.5 per cent.

Iron ore mined, from 7,975,000 long tons to 35,983,000 tons, or by 28,008,000 tons, equal to 351.2 per cent.

Petroleum produced, from 26,286,000 barrels to 179,572,000 barrels, or by 153,286,000 barrels, equal to 583.1 per cent.

Aggregate length of railroads, from 92,000 miles to 231,000 miles, or by 139,000 miles, equal to 152.1 per cent.

Exports of merchandise, from \$836,000,000 to \$1,063,000,000, or by \$227,000,000, equal to 98.9 per cent.

Aggregate resources of National banks, from \$2,108,000,000 to \$9,574,000,000, or by \$7,466,000,000, equal to 354.1 per cent.

Capital of National banks, from \$460,000,000 to \$945,000,000, or by \$479,000,000, equal to 102.8 per cent.

Individual deposits in National banks, from \$873,000,000 to \$5,010,000,000, or by \$4,137,000,000, equal to 473.9 per cent.

Deposits in State, savings and private banks and in loan and trust companies, from \$1,319,000,000 to \$8,710,000,000, or by \$7,391,000,000, equal to 560 per cent.

Expenditures for common schools, from \$78,005,000 to \$336,878,000, or by \$258,878,000, equal to 331.3 per cent.

Although population has not increased in the South as rapidly as in the rest of the country, principally because the South has had comparatively little addition from foreign immigration, the South has shown a greater rate of increase in all the lines detailed in this review, with the exception of the true value of property, the quantity of grain and of the value of farm products. But it is notable that the value this year of farm products of the South is nearly \$100,000,000 more than the value of the farm products of the whole country in 1890, not including animals slaughtered.

This wonderful advance in agriculture of 256.6 per cent. in 20 years in the South, which, with a population only 30.9 per cent. of the total population of the country and an area only 27.1 per cent. of the country's area, is now raising 29.1 per cent. of the country's crops, is a promise of what Southern agriculture is to achieve in the future. If the same rate of growth should continue, though when figures get so large percentages of increase generally decline, in the next 20 years the agricultural production of the South would rise to a yearly value of \$9,500,000, or about \$740,000,000 more than this year's production in the whole country. This situation is partly appreciated by the thrifty farmers from other parts of the country, who are moving into the South at the rate of between 200,000 and 300,000 a year, and by investors of the South or of other parts of the country, who are putting their millions into manufacturing industries of ever-increasing variety, into mineral lands, into timber tracts, into railroads and into trade and commerce. To meet the agricultural demands cut-over timber lands are being converted into farms for trucking or for general crops, and drainage and irrigation are bringing fertile soil into cultivable condition.

Other lands are yielding in greater quantity than ever, the average yield of corn per acre having advanced from 20 bushels in 1880 to 20.8 bushels in 1908; of wheat, from 8.2 bushels to 11.5 bushels, and of oats, from 13.8 bushels to 21 bushels, while there is a general tendency to get better results per acre in cotton.

The cut of lumber in the South since 1880 has been close to 290,000,000,000 feet, or about 35 per cent. of the total cut in the country, and, possessing about 42 per cent. of the country's forest area, the South is steadily yielding a greater and greater proportion of the lumber supply. More than 50 leading minerals are produced in the South, its phosphate rock and sulphur dominating the markets in their particular fields, and its petroleum and natural gas becoming of greater value in industry as production in the upper Appalachian field declines. Of the South's 494,000,000,000 tons of coal, not including the unknown quantities of Mississippi and Louisiana lignites, but 1,667,300,000 tons have been mined, and but a beginning has been made in developing its 10,000,000,000 tons of iron ore.

The manufacturing census of five years ago covered 339 separate kinds of industry, and of these 262 are represented in the South. In the past eight years, including two years of industrial depression, \$518,000,000 have been invested in industries established along the lines of two Southern railroad systems alone.

Building of new railroads and extensions of existing lines, to meet the certain requirements of the next five years, should call for the expenditure of at least \$750,000,000 in the South for that purpose alone. In that period at least 20,000 miles should be added to the South's railroad equipment, bringing the total close to the total mileage of 92,296 of the whole country in 1880. During the year just closing one railroad, built from the ground up by one man at a cost of more than \$30,000,000, was completed from Hampton Roads to the coal fields of West Virginia, a distance of 446 miles; another, to connect the Ohio Valley through the coal and timber lands and the textile centers with the South Atlantic Seaboard, began operating into the heart of South Carolina, and a third, bridging the Florida keys to Key West, will be completed shortly after the turn of the year.

These great engineering feats in railroad building presage a vast expansion of commerce through Southern ports. That has grown notably on the Gulf Coast, and a realization of that fact is responsible for the \$3,000,000 to \$5,000,000 being expended upon model terminals and a great warehouse system at Texas City, and for comprehensive plans of enlarged facilities at New Orleans, Galveston, Port Arthur, Mobile and other Gulf ports.

The swing of the iron and steel trade toward the South is emphasized by the vast improvements involving millions of dollars announced a few weeks ago by the United States Steel Corporation for the Birmingham district, including the building of a storage reservoir to hold 2,500,000,000 gallons of water in a lake five miles long, the erection of two additional 100-ton open-hearth furnaces at Ensley and a by-product coke-oven plant with a capacity of about 3000 tons a day, with which should be considered the \$3,000,000 wire and rod plant to be established by the American Steel & Wire Co., a subsidiary company, and the investment by the Rothschilds and their associates in New York and Europe in a steel plant and rod and wire mill at Gadsden, which will employ between 3000 and 3500 men.

The future of iron and steel and allied industries in the South can be easily discovered in the light of such facts. The textile industry long since demonstrated its future status. A woodworking center in North Carolina, close in importance to Grand Rapids, Mich., points to greater diversification in the handling of lumber products.

So the story runs through manufacturing, mining, farming, transportation, trade and commerce. It is a story thrilling even when told statistically. Its details could be elaborated into a volume equaling in interest to the intelligent mind the most swiftly-moving romance. It is a story of a people coming at last into a realization of the magnificent potentialities of their section, and in that realization attracting mind, muscle and money from the rest of the country and from the world. The way has often been rough and difficult. But the way has always been there, and there have always been men pointing it out or pioneering along it. Their spirit has for two decades or more inspired a greater and greater number of their fellows. Now, the whole South is busy in adding chapters to the great story. It is the story of Southern success.

"SOUTHERN COMMERCIAL CONGRESS" AND MANUFACTURERS' RECORD.

Mr. John M. Parker, as president of the "Southern Commercial Congress," has endeavored to have printed in the daily newspapers of the South charges against the integrity of the MANUFACTURERS' RECORD. One of his satellites, with some newspaper experience, doubtless feeling that self-respecting newspapers generally would not touch the particular documents bearing Mr. Parker's signature, and that, therefore, they would not otherwise be read, has sent some of the documents to secretaries of business bodies in the South, doing them the injustice of measuring them by himself. Of four hundred and more daily newspapers in the South, less than twenty, according to our careful investigations, paid any attention to the screed to which Mr. Parker incontinently affixed his signature. Of the less than twenty, four are published in his home town. One in another city sent a trickle of ice-cold water down the spine of the charges. The rest of the newspapers of the South, in their long knowledge of the character of the MANUFACTURERS' RECORD, apparently recognized the wildness of the charges and sent them to the waste-basket to join other lucubrations of the "Southern Commercial Congress."

Through ignorance thoroughly characteristic of the general equipment of the "Southern Commercial Congress" outfit, one of Mr. Parker's literary assistants, we presume, mailed a copy of the screed to a newspaper which he could not have known is one of the publications of the MANUFACTURERS' RECORD. In that way we obtained for our own uses the first copy of it now in our possession, which enables us to meet at first hand Mr. Parker's "demand" that—

The MANUFACTURERS' RECORD deal in facts, and if it has facts at its command, its duty is to show the people of the South why this movement should be killed.

At the outset we desire to emphasize that by "Southern Commercial Congress" we do not mean gentlemen who may happen to be in Washington on such business as attendance upon the Rivers and Harbors Congress, and who may employ their leisure in studying the manifestations of an aggregation assuming to represent the real business interest of the South. Nor do we mean other Southerners who may appear before the gathering, in spite of obvious facts, in the hope that in some way or other they may thus benefit the South. We do mean the influences of one kind and another which, during the past decade, have, under cover of "Southern" congresses, conventions and parliaments, after vainly seeking the aid of the MANUFACTURERS' RECORD, deliberately sought, but vainly, to discredit the standing of the MANUFACTURERS' RECORD and the work that it has done for the South for many years. In such attempts they have acknowledged the fact that, because of its standing gained in work for the South, the MANUFACTURERS' RECORD is an obstacle in the way of schemes likely to be detrimental to the South. Cajolery on their part has been followed regularly by threats and by underhand attacks, and in such attacks have usually been secured as allies more or less obscure individuals who have applied to themselves general criticisms made by the MANUFACTURERS' RECORD, or who have extraneous causes for enmity. That a man of Mr. Parker's standing could have been at this late day made an unwitting party to any of the schemes shows how desperate failure has made them. We desire, also, to have it distinctly understood that we do not believe that Mr. Parker considered the full significance of his act in circulating the attack upon the MANUFACTURERS' RECORD, and that we stand ready to publish his retraction of it.

The whole trouble with Mr. Parker is, in our opinion, that the MANUFACTURERS' RECORD has published so many facts showing the uselessness of the "Southern Commercial Congress" that he knows better than anybody else, perhaps, that the thing is already practically a corpse, as far as the plans of its early days are concerned. At any rate, we think that its obituary in that respect was written by itself through the documents signed by its president. We shall, however, reluctantly, on his account alone, meet Mr. Parker's demand and give him facts which must have been unknown to his literary assistant. We approach these facts through quotation of the charges he makes against the MANUFACTURERS' RECORD. The most serious one, from both a legal and a journalistic standpoint, is embodied in Mr. Parker's statement:

The people and press of the South are the judge and the jury to decide whether or not the unselfish efforts of our citizens to know and to make known our own Country shall be stifled by the interested attacks of a bought journal.

That charge is made November 18, 1909, more than a year since the insinuations against the MANUFACTURERS' RECORD, which Mr. Parker now offers as documents in the case, were published broadcast and promptly answered. Let Mr. Parker show from his own words what he thought of the insinuations. Two months after their publication Mr. Parker wrote to the editor of the MANUFACTURERS' RECORD a letter in which, in discussing plans of the "Southern Commercial Congress," he said, under date of January 5, 1909 :

Probably no one man in the South, by both word and deed, ably written, convincing editorials and the power of a great paper, has helped the entire Southern section or labored more earnestly for its material welfare and development than yourself.

Fully appreciating that fact, and doubly so the consideration and friendship always shown me, I am going to ask, if possible, your meeting with our Executive Committee in Atlanta on January 15, where you can in person form your own judgment as to what we hope to accomplish, how we expect to do it, and the personnel and character of the men in charge.

I promise you a cordial welcome, a most courteous hearing, and invite your criticism.

Other letters have passed between Mr. Parker and the MANUFACTURERS' RECORD since then, to which we shall refer later; within the past five or six weeks he has had a long-distance talk with the editor of the MANUFACTURERS' RECORD on a perfectly cordial basis, and not a hint in all from him that he questioned the personal integrity of the MANUFACTURERS' RECORD. His splendid tribute to the work for the South by the MANUFACTURERS' RECORD, which he volunteered in January last when seeking our co-operation, was excelled by that which he endorsed not later than November 10, 1909. At that time he was one of the signers, as president of the "Southern Commercial Congress," of a letter to commercial organizations in the South, in which he said:

On the reverse of this sheet is a valued editorial from the *Gulf States Banker*.

The *Gulf States Banker* is published in Mr. Parker's home town. In its edi-

torial endorsed as "valued" by Mr. Parker was the following paragraph:

We are glad to admit that up to this time the MANUFACTURERS' RECORD has been the most valuable medium for systematically advertising the South. Its editor and management deserve a great deal of credit for the manner in which they have persistently looked after the interests and the development of this section. The MANUFACTURERS' RECORD has in the past given ample proof that it is earnestly desirous to assist in any movement which will lead to a "greater South," and it is, therefore, hard to understand why it should be so vigorously opposed to this movement, which has been thought out and is being worked out by Southern business men of the highest type, patriotic men, who are not working for personal gain or glory, but for the common good of our section.

Within a week after endorsing that self-answering editorial tribute to the MANUFACTURERS' RECORD Mr. Parker permitted himself to be led into having his name affixed to a charge that the MANUFACTURERS' RECORD was a "bought" paper in a conspiracy to prevent the healthy and natural development of the South by its own people.

This exposition made of himself by Mr. Parker leaves to intelligent men, believing that Mr. Parker has had all along a firm grip upon his intellectual machinery, but one of two conclusions. Either he believed on January 5, 1909, and on November 10, 1909, that the MANUFACTURERS' RECORD was subsidized in a conspiracy against the best interests of the South, in which and for which it had been working for more than a quarter of a century, or he did not believe such a slander.

The communication of November 18, 1909, to which his name is affixed, indicates that he did believe it. What, then, of his own expressions of January 5, 1909, and of his endorsement on November 10, 1909, of editorial views recognizing work by the MANUFACTURERS' RECORD that could not possibly have been done by any enemy of the South or conspirator against its welfare?

We submit the conundrum to men of the South who are able to understand the plain English and the significance of the pitiful dilemma in which Mr. Parker has allowed himself to be enmeshed.

We shall not ask him to inform us who is responsible for his plight. We have found that it is useless for us to attempt to get from Mr. Parker facts about the "Southern Commercial Congress" or its bearings to reinforce statements that he makes. For instance, he wrote to us under date of January 5, 1909, as follows:

I have received a large number of clippings from the MANUFACTURERS' RECORD sent by mutual friends with the query as to why you are so strongly opposed to The Southern Commercial Congress.

On receipt of this statement we wrote immediately to our representative in New Orleans, Mr. Parker's home town, calling his attention to it, and adding:

Will you kindly ask him to give you the names and addresses of all of the people from whom he has received the clippings, in order that we may send them a copy of an editorial to appear in next week's issue explaining our reasons? Don't let Mr. Parker put you off in this, but please get a full list. I want to see just how large the number is and who they are.

From our representative we received, under date of January 14, 1909, the following:

When I asked Parker for the names of the people who had sent him clippings and letters, he said: "They are all readers of the MANUFACTURERS' RECORD, so it isn't necessary to send them any marked copies."

We have yet to learn the names to which Mr. Parker referred in his letter of January 5. The same reluctance has been manifested by Mr. Parker in connection with his second charge, which is:

The MANUFACTURERS' RECORD has failed to publish complete a communication from myself and from others interested in the movement, thereby cutting off our right to answer them through their own columns.

As soon as we read that in the Parker screed that came to our office by mistake, we telegraphed, under date of November 22, to Mr. Parker as follows:

Referring to your letter, November 18, addressed *Daily Bulletin*, please wire, our expense, when MANUFACTURERS' RECORD ever failed to publish complete a communication from you intended for publication, or when we denied you the privilege of answering through our columns any statement in regard to Commercial Congress.

No reply has been made to that request, which was a fair one and a justified one. No answer has come, because, as far as we are aware, no answer is possible. On the contrary, we can recall no communication bearing upon our criticism of the "Southern Commercial Congress" that has been sent to us for publication by anybody connected with the "Congress." Mr. Parker's first letter on the subject, that of January 5, 1909, made no suggestion that it was for publication, and, indeed, we have never had, until the appearance of the screed of November 18, 1909, the slightest intimation that he even expected us to print it. In the opening lines of Mr. Parker's letter of January 5 was the following sentence:

Please let me trespass on your valuable time by asking you to read the enclosed brief prospectus, and, if you have the time and inclination, to frankly criticize our plans.

The prospectus contained glaring errors as to fact. Having read it, we criticized it in a letter to Mr. Parker. In view of his statement that inquiry had been made about our opposition, we embodied the gist of the letter in an editorial, making no reference to Mr. Parker. The personal matter in the letter, indicating our friendly relations with him, was:

You have written asking me to criticize frankly the plans associated with the late "Southern Commercial Congress" at Washington. In my judgment there is so little about the plan that can possibly have any bearing upon its announced purpose—the speeding of the material development of the South—that I had practically dismissed it from serious consideration, in view of the necessity to avoid the loss that would come from misdirected energy. Fully appreciating the kindly impulse of your letter, in the light of a long-standing friendship, and hoping that nothing I may write may be misunderstood by you, I shall try to explain the lack of interest on the part of the MANUFACTURERS' RECORD in the enterprise to which you have been led to give the use of your name.

I shall not be able to accept your kind invitation to meet your executive committee in Atlanta on January 15, but I hope that what I have here written may lead them to recognize the certain waste of energy and money in attempting the perpetual exposition idea in Washington.

That Mr. Parker took no offense at our not publishing his letter or the prospectus enclosed with it is indicated by his letter of March 1, 1909, to us, which said:

I am more than confident that you misunderstand the purposes at which we are aiming,

and am going to try very hard to drop by and pay my personal respects and see you the latter part of next week.

One correspondent at Washington was so adverse to appearing in print that he accused us of "breach of confidence" in publishing extracts from a letter he had written us, which was absurd, as nothing was said about privacy and we had not intimated who its author was, as we are not doing now, though ready to do so if he or Mr. Parker desires. We published the letter because it contained the following, under date of Washington, January 13, 1909:

You have no doubt heard of the recent purchase by the Southern Commercial Congress of a site in Washington upon which will be erected a building costing \$1,000,000, which will be used as the headquarters of this Congress.

I have definite assurances that the money has been secured, and there is no doubt that the plans will be consummated. The property was purchased for \$500,000 and paid for in cash.

One of the gentlemen interested in the movement has requested that I make an appointment with you to meet him and some other officials, in order that they might explain to you their purpose, and, if possible, enlist the co-operation of the MANUFACTURERS' RECORD. They are willing to give you the first complete statement of their purpose, which, if you desire, can be published.

We took no stock in the statement, made in good faith by our correspondent, that \$500,000 had been paid for a site for the "Southern Architectural Monument" in Washington. It was in line with the buncombe that had been floated from Washington for a month. We took so little stock in it that we discouraged the idea of any conference on the subject, though expressing a willingness to meet the unnamed "officials" if we were disengaged when they should call. But we tried to learn from our correspondent how he had been stung by the promotion of the real estate scheme that had been grafted upon the "Congress" almost before it had dried. Under date of January 16, 1909; we told our correspondent that Mr. John M. Parker's announcement at New Orleans, that only an option had been secured on the property, was a direct contradiction of the report that \$500,000 had been paid for it, and we added:

I take it for granted, of course, that you received the information and passed it on in good faith. In view, however, of this contradiction, I would be very glad if you would give us the names of the people who authorized or asked you to make such a statement to us.

To that came reply in the course of a letter under date of January 18:

I hardly think it would be proper for me to give you the name of the gentleman who suggested this meeting with you until I have his consent.

I shall endeavor to get in touch with the gentleman who suggested this interview, and will be pleased to write you further if he desires to follow the matter up.

And the conclusion of that effort of ours to get at the truth about the deal was our message to our correspondent in a letter of February 11:

Permit me to suggest that you have failed to grant my request to give me the name of the individual who gave you the information conveyed to me in your letter of January 13. I have discovered like reluctance in other quarters in this connection. Such hesitancy only tends to confirm me in my conviction as to the unwise of the proposition.

Surely Mr. Parker does not believe that the letter of February 25, 1909, to us from Mr. John G. Ruge of Apalachicola, Fla., vice-president of the "Southern Commercial Congress," was intended for publication! That letter ended with the words, "I am addressing this to you CONFIDENTIALLY AND PRIVATELY." We would no more think of publishing that letter than we would think of making public unless compelled to do so, without his permission—and we have asked that of him since Mr. Parker tried to break into journalism—the details of the confidential talk Mr. Ruge had with a member of the staff of the MANUFACTURERS' RECORD in our office on or about November 4, 1909.

Nor ought Mr. Parker to class among communications not published by us the long conversation held in our office in March with a member of our staff by Mr. Alexander McNeil, eighteen months from Nova Scotia, in Washington for his health, a member of the "Washington Committee" of the "Southern Commercial Congress" and later named as treasurer of the Southern Building Corporation, a second stage in the real estate deal. He told the member of our staff that through him the deal had been made between Cardinal Gibbons and the individuals first concerned in the option on the St. Matthew's Church property. He spoke of seeing in Washington Mr. Parker's letter that had given him the pretext for his visit. Though no secrecy was enjoined, we did not think it necessary to make public Mr. McNeil's talk or our emphatic objection, made known to him, to the whole scheme.

We make no demand upon Mr. Parker, but suggest that, while he is talking about facts, he make public, if he is acquainted with them, all the facts bearing upon that real estate deal, the names of subscribers to banquets, etc., and the amounts subscribed, etc., etc., up to the time at least when he became an incorporator of the Southern Building Corporation, now tendering for sale stock in the building enterprise. We suggest this without believing for a moment that the deal was not a perfectly proper one, an attempt at Washington to market a piece of real estate and to erect upon it a building that might be financially profitable to investors in it. We suggest this for the purpose of demonstrating that it was not a business proposition as far as development of the South is concerned, and that adoption of it by men assuming to represent the best in Southern development was a clear proof of the unbusiness-like character and the unutility of the "Southern Commercial Congress."

Returning to the subject of communications, we did receive one in June, in common with other Southern newspapers, with the introductory note:

Editors: You will confer a great favor by using as much of the present article as possible and thus assisting in securing a large attendance at a convention in which the newspapers of the South have a direct concern.

The stuff was not published by us. It was but advance wind of the Atlanta convention of the "Southern Commercial Secretaries' Association." It contained the statement that out of the first convention had grown "the Southern Commercial Congress, of which John M. Parker, a wealthy cotton planter and business man of New Orleans, is president." It was sent out by M. B. Trezevant, whose duties as secretary-manager of the Progressive Union of New Orleans, Mr. Parker's home city, were apparently so unarduous that he could also be a member of the publicity committee of the "Southern Commercial Congress" and president of the Louisiana Commercial Secretaries' Association; could undertake at Atlanta

the job of secretary-treasurer of the "Southern Commercial Secretaries' Association," and still find time to give expert opinion on the important part that officials of business organizations ought to play in placing advertisements for the benefit of the community.

Because we saw the joke in the Atlanta Auditorium being provided for a meeting that panned out about 47 members, and because we noted a few weeks ago that reported statement by Mr. Trezevant that the New Orleans Progressive Union was the only one in Louisiana allied with the "Southern Commercial Congress," may be the reason for Mr. Trezevant's enthusiasm in now circulating Mr. Parker's screed.

We did publish the parts of a letter of April 12 from Montgomery, Ala., discussing our attitude toward the "Congress," and replied to it editorially, mentioning no names. But we did not publish our reply to the inquiry about a certain individual connected with the "Congress," in which we said on April 17, 1909:

If you had carefully followed our discussion of the late Southern Commercial Congress at Washington you would know that in that discussion, as in our discussions of most questions, we have endeavored to avoid dealing with personalities and to confine ourselves to the main point, the possible effect upon the South. In accordance with our policy, therefore, we shall have to ask you to excuse us from following the lead of your appended letter of April 12 regarding any individual connected with the late Southern Commercial Congress.

There was another correspondent, we had almost forgotten, H. H. Richardson, secretary of the Board of Trade of Jacksonville, Fla., and president of the "Southern Commercial Secretaries' Association." He wrote on July 20 and July 28, and although he referred to the "Southern Commercial Congress," he distinctly stated that he had not written about it. So, we may hardly be accused by Mr. Parker of not publishing in Richardson's case an intended answer to our criticism of the "Congress." Richardson informed us that he was going to send a copy of the correspondence to the New York *Sun*. He has never favored us with the *Sun's* reply.

Three other letters contesting our position we recall. One of them was from Birmingham, Ala., and one was from Memphis, Tenn., following a visit of Mr. Parker to that city in promotion of the "Congress." Neither was offered for publication, but both apparently sought information. We elaborated our reply to them in an editorial of March 4, 1909. The third came from Walter Parker, newspaper writer in New Orleans, the home town of Mr. John M. Parker. It dealt to a large extent with the great wealth and high standing of Mr. Parker, and with the building scheme at Washington, involving the almost infantile expectation that one thousand successful business men in the South would each send a draft for \$250 and sign three promissory notes of \$250 each for account of an aggregation that had no corporate being.

That Mr. John M. Parker, described by Walter Parker as a very rich man, owner of five plantations, head of an important business house, stockholder and director of banks and great corporations, was a party to the million-dollar building scheme did not give the slightest aspect of business to the scheme. It was merely a proof of the wonderful inherent, benevolent strength of Southern natural resources.

Be that as it may, to the best of our knowledge and belief, Walter Parker's tender is the only communication from anyone connected with the "Congress" or in any way related to it, sent to us for publication, that we refused to publish. It was no answer to anything that we had published about the "Congress." It was mere promotional stuff. We turned it down in these words to its author:

We beg to suggest that the syndicated matter you have sent us bearing upon the late Southern Commercial Congress differs in no essential respect from the matter which has been circulated from Washington from time to time since the scheme was launched and contains no argument that is likely to appeal to men seriously interested, from the standpoint of knowledge and experience, in the material development of the South.

It may be that this enterprising individual is the "others" whom Mr. Parker charges us with denying access to our columns. But it would have not cost him a cent to telegraph that information to us when we asked him.

Our request on that point is still open. Frank response by Mr. Parker may clear up misunderstanding on his part and may recall to us facts that are not now within our range. It may enlighten Mr. Parker if he knows that for many months the MANUFACTURERS' RECORD has received outgivings of the "Southern Commercial Congress" only through the kind thoughtfulness of editors of Southern newspapers and secretaries of Southern business bodies, who evidently sized up the outfit as being one not likely to send them to us.

One point made by Mr. Parker is even weaker than his plaint about suppression. He says:

I have not the slightest ambition of a political, personal or financial nature connected with this enterprise.

We have made no suggestion calling for that ad hominem excursus. On the contrary, we have in our comments upon the "Congress" and its vermicular appendix, the "Southern Architectural Monument" at Washington, unvaryingly given credit to Southern gentlemen concerned in the enterprise for the best intentions. Three citations, of September 24, 1908; December 24, 1908, and March 18, 1909, respectively, may suffice as illustrations of this policy:

In view of the dismal failures during the past 10 or 15 years of so-called "Southern" congresses, conventions, parliaments, etc., and of the widespread knowledge of such failures, we cannot understand why anybody, however excellent his intention and great his enthusiasm, should be led to believe that the South can be benefited by further attempts in the same direction.

While appreciating heartily the earnest intent of some representative Southerners who have been mistaken in believing that such organizations might benefit the South, the MANUFACTURERS' RECORD, which has made a close study of such movements for over 20 years, is convinced of their utter futility. It desires to reiterate its position, in spite of underhand methods which have come to its knowledge, resorted to by interested parties to misrepresent its position. These chimerical schemes have been coming to the front regularly every year or two for 20 years or more. At times they have numbered among their temporary supporters some of the very best men in the South, but they carry within themselves the seeds of death.

Giving every credit in the world for enthusiastic singleness of purpose to him and other Southern gentlemen who have thought to see in the overworked and discredited Southern Convention scheme, with or without its "bureau" appendix, a practical device for the advancement of the South, the MANUFACTURERS' RECORD is convinced that they are grievously mistaken and hopes that they will quickly know the facts.

If the attack upon the MANUFACTURERS' RECORD through Mr. Parker was de-

signed to pave the way for some other wild scheme of the "Southern Commercial Congress," now that the \$1,000,000 endowment by one thousand successful business men of the South has apparently gone higher than any aeroplane has ever dared to try, and to advertise among a certain class the coming meeting of the "Congress," it may have succeeded. It may have even induced three or four hesitating business bodies to contribute \$25 cash toward paying the "expenses of the Congress."

It surely has advertised the "Congress" in its true colors. We are forced to express, with regret, that Mr. Parker has allowed himself to be made a perfect exponent of the "Congress." The MANUFACTURERS' RECORD could not possibly have devised condemnation of the enterprise truer and harsher than that set forth in the documents bearing the name of Mr. Parker, an injustice to Mr. Parker himself.

In conclusion, we may repeat here what was written to Mr. Parker, following our telegram of inquiry of November 22:

Months before you became a victim an attempt was made to coerce, by threats, the MANUFACTURERS' RECORD into support of the scheme. Our first serious criticism of it was published in response to your request of January 5. We regret that the effects of our criticism, which has sedulously recognized the good intent of Southern men caught in the scheme, have not been taken by you as they were intended, a saving of you from personal embarrassment, but have been employed to induce you to be willing to attach your name to a screed which we cannot believe originated in your mind. In this situation you have my sincere sympathy. I am sure that, as others have done before you in similar cases, you will come to recognize that in this episode the MANUFACTURERS' RECORD has been one of your best friends.

To which may be added the suggestion that, if Mr. Parker and a few others of his kind in the South had bought the MANUFACTURERS' RECORD regularly during the past ten or fifteen years, had bought it as it has only been bought by anybody since it was founded in 1882, at the price per copy printed upon its cover page or at its regular subscription rates, or, in the case of special issues, at the additional cost of the larger paper, and had read it regularly, the South would have been just that much saved from being misrepresented and hampered in its development by enthusiastic but uninformed men of that section, and the reading individuals would have escaped the embarrassment following good-intentioned but ignorant adoption of schemes that can only injure the South.

DANGER TO THE SOUTH IN REAL ESTATE SCHEMES.

In every direction there are evidences that the great prosperity of the South will be used by speculative operators to win the hard-earned money of Southern farmers and the equally hard-earned money of the people of other sections, by tempting them to invest in unwise operations in the South. There are great opportunities for successful real estate investments in the South, but there are likewise great opportunities for unsuccessful investments by those not familiar with Southern conditions or with the responsibility of people who are seeking to attract money into the South.

At such a period as that upon which the South has entered there is very great danger that the country will be flooded with circulars and advertisements of real estate ventures in the South, some of which will no doubt be fraudulent. The land may be there, but it may not be susceptible of all that is claimed for it, and the investor in the South who, through injudicious advice or through swindling operators, is induced to put his money into Southern properties only to find that it is all gone and that he has nothing to represent its values, becomes an enemy of this section. He charges his loss against the South and the people of the South, while in all probability the people of the South themselves will in no way be responsible for it, but outside operators who are less interested in Southern progress than in filling their own pockets with profits. Very great care is needed on the part of the people in the South and of those outside the South in purchasing property without first seeing it and thoroughly studying the conditions surrounding it themselves. However promising may be glowing prospectuses, a personal investigation would be wise before investment. It behoves the South to be very wary in watching every movement of this kind. The whole country is being flooded with the most glowing pictures of the fortunes to be made through the purchase of small tracts of real estate in various parts of the South. Some of these enterprises may be legitimate, some of the

land to be sold may be worth the price asked, but however legitimate some enterprises may be, however strong the commendations put forth, the investor ought to see for himself before buying property. That there will be many fraudulent schemes floated on the public probably admits of no question. Thousands of people will be deluded by false statements, and many thousands of dollars may be drawn from the pockets of poorer people unable to make personal investigations, tempted by the glamour of romance and the vast possibilities which are outlined as to what can be done on lands that are advertised by promoting concerns of this character. There will be legitimate enterprises, managed by honest people, but the very honesty of their work and their success will result in the floatation of many fraudulent enterprises and of many enterprises which, though the promoters of them may be honest in their intention, will be thoroughly unsound.

The South is now in more danger from the country being stamped by the wild advertising that is flooding many daily papers, especially many of the Sunday papers of the land, than it is in danger from lack of attention. These appeals are made to people of small means, to farmers and others in the North and West anxious because of their desire to better their condition to move elsewhere, or because longing for reasons of health to escape the rigors of Northern winters, they desire to get into the South. Many will stake their little all, to their own loss and to the great discredit of the South. The South does not need this kind of work. It is undesirable from every point of view. Honest, legitimate development is desired. Honest, legitimate immigration of people who for themselves or through their own agents make careful investigation of particular localities, is much to be desired; but a wholesale flooding of the country with wild flambouyant tales, appealing to the people of other sections to purchase land which they have not seen and about which they know nothing from personal investigation or the investigation of their own agents, tends to the ultimate injury rather than the benefit of the South.

NATIONAL RIVERS AND HARBORS.

Several years ago the MANUFACTURERS' RECORD, appreciating the coming breakdown of the transportation facilities of the country in view of the fact that traffic was growing more rapidly than railroads, and recognizing the supreme importance of broadly developing our water transportation opportunities, made the suggestion that the Rivers and Harbors Congress should work to the point of inducing the National Congress to issue \$500,000,000 of bonds for the purpose of carrying out as rapidly as could be done the deepening of our rivers and harbors. At the time many of the most ardent friends of the MANUFACTURERS' RECORD in the Rivers and Harbors Congress thought we had made a mistake and felt that the country was not ready for a suggestion involving the expenditure of so large an amount of money.

The MANUFACTURERS' RECORD knew that the country was not ready for it, but when there is a need as great as was the need in this case the best way is to face the situation and state the facts. The suggestion which was first considered as not feasible has now come to be the rallying cry of the Rivers and Harbors Congress, and in all sections of the country broadminded men are seeking to impress upon the national Congress the necessity of such a step as this. In our rivers and harbors we have a vast, practically undeveloped potentiality. Through the expenditure of \$500,000,000 this potentiality can be made a reality. We could in this way provide to some extent the facilities for transportation which the growth of the country absolutely demands and which the railroads will not be prepared to meet.

It is as true now as it was several years ago when the suggestion was first made that traffic is growing more rapidly than railroads. There are only two ways in which this can possibly be met. One is by the broadest possible expansion of railroad building, requiring the investment of a good many billions of dollars, and even if the money were today available the traffic would grow faster than the railroads could be built. The other way is to deepen our harbors and improve our rivers to such an extent that we may fully utilize this undeveloped asset. As a nation we are very backward in water transportation, except on the Lakes, and very backward in foreign commerce as compared with other countries. Even Argentina is doing about three times as much foreign commerce per capita as the United States. If our import and export trade equaled that of Argentina per capita it would be about \$9,000,000,000 instead of about \$3,000,000,000 as it is now averaging. We are entering the world's markets. To do this under the best conditions we must reduce the cost of handling merchandise at our ports as well as the cost of handling it from the interior to the ports. Great as has been our progress in many directions, we have, except on the Lakes, failed to fully utilize the magnificent opportunities given us in our rivers and in our thousands of miles of coast line on the Atlantic, the Gulf and the Pacific.

If we could imagine that any private corporation had before it such an opportunity as that which the country faces in its ownership of these rivers and harbors we could not imagine that it would be so shortsighted as not to utilize it to the fullest extent. A private corporation having such an opportunity, recognizing that this investment would be returned many fold, would

issue bonds to provide for immediate construction work rather than await the slow and piecemeal way of doing business which has prevailed in national affairs.

In one sense the United States is a great corporation and the people are the stockholders. They are the ones to be benefited by this expenditure. Such an investment of \$500,000,000 in the carrying out of the river and harbor improvements upon which the engineers have passed their judgment as feasible would be, from the investment point of view, one of the most profitable things which it is possible for the United States to undertake.

Why should not the people who are the stockholders in this gigantic corporation secure the benefits of this development?

Why should they wait for future generations to accomplish what can be wrought in this generation?

Why should we face the certainty of another breakdown of transportation in the near future because of the inability of railroads to keep up with traffic without safeguarding ourselves to the utmost by improving our river transportation?

The collapse of the railroad situation two years ago, due largely to the fact that there was such congestion of traffic as to make it impossible for the railroads to do business to advantage, cost the country far more than the amount of \$500,000,000 suggested for expenditure in river improvements to help to prevent an even worse breakdown in the near future. The early assembling of the Rivers and Harbors Congress in Washington makes timely the reiteration of these facts, for every month's delay only intensifies the situation and brings us nearer to the point when transportation facilities will again be so inadequate as to bring about losses to the people far greater than what we have suffered in previous transportation breakdowns. It is time to move and the Rivers and Harbors Congress can well afford to take a very advanced and decided stand.

APPALACHIAN FOREST RESERVE

With the assembling of Congress united work on behalf of the Appalachian Forest Reserve should be made by the people of the whole country. The preservation of that imperial region is the controlling factor in the conservation of the climate, the health, the soil, the rivers and the business interests of the vast territory in the North and West, whose rivers drain from the mountains of that region, is of vital importance to the whole country. Without such protection to the forests of that great mountain range floods will increase, the millions now annually lost will largely grow, rivers will be made valueless for traffic, as well as for power, and profitable agriculture over a great area will be made impossible. That region, the heart of America, is a national asset than which there is none more valuable.

A few far Western people, not fully understanding the situation, have heretofore opposed the plan for an Appalachian Forest Reserve, but that was because their horizon had not been broadened enough to see its importance and to realize its value to the whole country. This great work ought not to be longer delayed. Congress ought speedily to enact the necessary legislation to make certain of the preservation of the forests of the Appalachian region in order to insure the perpetuation of climatic conditions and of the

rivers whose headwaters are the mountain springs of this great region. To the cotton manufacturing and cotton producing interests of the South, as well as to the cotton manufacturing interests of New England, this matter daily grows in importance. Somewhat similar conditions make it likewise important that the White Mountain region of New England should be protected by Congress in the same way.

It will be worse than folly to talk about restricting the development of water-powers in order to safeguard the interests of the country if these water-powers are to be ruined through the destruction of the forests which cover the mountains. Surely there is enough appreciation of the situation on the part of Congress, after years of study, to act promptly, if the people of the country, who realize the vital importance of the subject, press the matter upon the attention of their representatives.

WISHES VS. WORKS.

A North Carolina subscriber, writing to the MANUFACTURERS' RECORD, says:

We have concluded to stop our subscription to your valuable paper, but you will always have our best wishes.

We appreciate "our best wishes." We much prefer to have them than not to have anything, but when it comes to the business end of it they do not go very far in maintaining the work which the MANUFACTURERS' RECORD is seeking to do in behalf of the South.

If all the good people in the South who are sending us their best wishes would send us an annual subscription they would have our best wishes, and at the same time would be given a fund of information about the South which they cannot obtain elsewhere. Unless they get full value received we would not, however, want their subscription. But we cannot imagine that there is any man in the whole South who, if he would for 12 months intelligently read the MANUFACTURERS' RECORD, could not say it was worth a great deal more to him than the annual subscription price. This can be said without egotism, because the MANUFACTURERS' RECORD constantly contains notable contributions from the leading authorities in all parts of the country on matters bearing on the South and its prosperity. The MANUFACTURERS' RECORD is valuable to its subscribers because of the facts and figures and the opinions of others gathered into every issue, in order that the story of the South and its resources and its possibilities may over and over again be told.

Our North Carolina subscriber, who volunteered the information that it is a valuable paper, and that we have his best wishes, ought to make a little more careful study of the situation and find out if it is not more valuable to him than the eight cents a week which it costs. There are thousands of people in the South reading the MANUFACTURERS' RECORD who are not subscribers to it. They borrow it from their friends who are subscribers, or see it in the reading-rooms of commercial organizations. Recently a subscriber informed us of two or three business men, friends of his, who every week borrow the paper in turn to read it carefully and study its facts about the South as well as the advertisements. He did not like to suggest to them that he sometimes needed the paper when they were borrowing it, nor did he like to suggest that they ought to subscribe, but that was the tenor of his thought. It was not long ago that we ran across a case where one copy of the MANUFACTURERS' REC-

ORD was regularly read by nearly a dozen men, each taking it in turn every week.

We are glad to know that the MANUFACTURERS' RECORD is so popular that practically everybody in the South is reading it; that is, everybody who wants to keep up with affairs; but we would like to number a larger proportion of these borrowers on our regular subscription list for their good, as well as the good of their friends from whom they now borrow.

SCHWAB AND BIRMINGHAM.

Rumors have been flying thick and fast in the Alabama district to the effect that Mr. Charles M. Schwab, president of the Bethlehem Steel Company, is contemplating investments in that district. Whether these reports at present be correct or not, it is altogether possible that Mr. Schwab will not permit so great a business opportunity as is offered by the situation in the South to pass by unutilized.

Mr. Schwab has a keen appreciation of the value of coal and iron ore properties. He knows something from personal experience of the wealth to be created by iron and steel making. It is not to be imagined that he will be content not to be one of the really great factors in the iron and steel interests of the country. He recognizes the possibilities of iron and steel making in the South, he knows that as the situation now stands the Steel Corporation is magnificently entrenched in the Alabama district, but he knows that there are other iron ore and coal properties in Alabama not owned by the Steel Corporation having greater aggregate resources in the raw material than those of the Tennessee Coal, Iron and Railroad Company. Probably no man in the iron business has a better appreciation of the great future of iron and steel making. Probably no man more fully realizes that we are only at the beginning of iron and steel making in America and that the next 15 years will see a rate of growth so great as to bring about in that period a new development practically as large as all that we have accomplished in iron and steel making from the beginning up to this time. It is hardly to be conceived that Mr. Schwab will be content to settle down to one fairly large plant in Pennsylvania while the Steel Corporation, with the creation of which he was so intimately identified, goes on expanding in every direction on such an enormous scale. The iron interests of the South offer a great field for Mr. Schwab's activities and he and the other big independent iron and steel people will be warmly welcomed and their coming will be regarded as one more step in Southern advancement.

COME ON, MR. SCHWAB.

MINERALS IN 1908.

The Geological Survey's summary of the mineral production of the United States in 1908, prepared by W. T. Thom, issued as an advance chapter of "Mineral Resources of the United States, Calendar Year 1908," shows a decline in the value of the country's mineral output amounting to about \$476,000,000, or 23 per cent. The figures for 1907 and 1908 are \$2,071,607,964 and \$1,595,670,186, respectively.

The loss is due to a decrease in the output of both metallic and non-metallic products. The most notable decreases among the metallic products were in the production of iron ores (30 per cent. in quantity and 38 per cent. in value) and of pig-iron (38 per cent. in quantity and 52 per cent. in value). The production of bituminous coal decreased about 16 per cent.

Gains are shown in the production of gold and in the quantity of copper produced, but this gain in quantity was accompanied by a loss in total value, due to the lower prices of copper. Petroleum showed a gain of about 8 per cent. in quantity and value, 179,000,000 barrels having been produced in 1908 and 166,000,000 barrels in 1907.

Considerable gains in mineral production were made by several States. California gained 15 per cent., Florida 24 per cent., Louisiana 11 per cent., New Hampshire 16 per cent. and South Dakota 72 per cent. The losses, however, were out of proportion to the gains. Alabama lost nearly 33 per cent., Colorado 17 per cent., Illinois 15 per cent., Michigan 34 per cent., Montana 22 per cent., New Jersey 35 per cent., New York 33 per cent., Ohio 35 per cent., Pennsylvania 28 per cent., Virginia 32 per cent. and West Virginia 16 per cent.

The value of mineral products in the Southern States, based upon bulletins of the Geological Survey, may be estimated at about \$230,000,000 in 1908.

THE COTTON MOVEMENT.

In his report for November 26 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight in 87 days of this season was 5,594,426 bales, a decrease under last season of 451,860 bales. The exports were 2,858,270 bales, a decrease of 100,523 bales. The takings were, by Northern spinners, 770,979 bales, a decrease of 177,637 bales; by Southern spinners, 660,948 bales, an increase of 11,180 bales.

SOUTHERN WOOD DISTILLATES & FIBER CO.

The MANUFACTURERS' RECORD has received complete details of the plant (mentioned last week) which the Southern Distillates & Fiber Co., American Trust Building, Chicago, will build at Bogalusa, La. A. W. Hanford, the company's engineer, writes:

"The plant for the manufacture of fiber board will have a daily output of 50 tons finished product, and also mechanical and soda pulp.

"The site comprises 50 acres, and the buildings will have an actual floor space of over 10 acres. The buildings will all be of heavy mill and concrete construction except power-house and reclaiming system building, which will be of steel and concrete and absolutely fireproof. Buildings as follows: Power-house, 50x90 feet; woodroom, 40x112 feet; chemical building, 50x64 feet; soda reclaiming system building, 50x64 feet; beater building, 40x176 feet; machine building, 40x272 feet; finishing building, 50x80 feet; machine shop, 50x128 feet; storehouse No. 1, 40x96 feet; storehouse No. 2, 40x96 feet.

"These are located in the form of a rectangle, with 50 feet of space between each for fire protection, and with the power-house as a central unit.

"The power-house will be equipped with a battery of Scotch marine boilers and 1000 horse-power in prime movers. This power is distributed throughout the entire plant by rope transmission.

"The equipment for the machine building is furnished by the Black-Clawson Company of Hamilton, O., consisting of one 106-inch five-cylinder board machine, with 70 driers.

"The chemical building is fully equipped with rectifiers, stills and condensers to care for the turpentine and rosin products removed from the wood by steam and mechanical pressure. The values secured in this department will more than pay the cost of raw material, fuel and woodroom expense.

"The whole plant will be furnished with

the best and most improved machinery available, and equipped throughout with a complete conveyor system, eliminating all handling of material during the entire process of manufacture.

"Arrangements are most fortunate for securing raw material and fuel for this plant, a 40-year contract having been made with the Great Southern Lumber Co. at Bogalusa, whereby they furnish up to 800 cords of refuse per day.

"A very important feature is an unlimited supply of pure water from the Bogalusa River, which flows along the south boundary of the site.

"The power for pumping this water into a reservoir of 5,000,000 gallons capacity, also for lighting the plant and all other electrical needs, is furnished by a 100-kilowatt direct-connected generator.

"A private switch running to all points where raw or finished products are stored insures prompt handling of all material.

"The shipping facilities are excellent. Bogalusa is located 70 miles in a north-easterly direction from New Orleans on the New Orleans & Great Northern Railroad, and has direct connections with all trunk lines from the South, and is also at the gateway of deep water.

"The plant has been designed with the idea of most economical expansion, as the refuse supply is sufficient to provide for the manufacture of 200 tons of finished product daily."

A \$750,000 STEEL SCRAPER PLANT.

The MANUFACTURERS' RECORD is informed that the buildings and machinery of the Kansas City Steel Scraper Manufacturing Co. will cost about \$750,000. This company was mentioned recently as to establish a plant, and it is formed to take over and enlarge the enterprise of the Slusser-McLean Scraper Co. of Sidney, O. A site of 30 acres has been purchased at Stetton, Kansas City, and the plant will include 11 buildings of fireproof construction, with steel frames, brick walls, metal skylights and concrete floors. The daily capacity of this plant will be five carloads of scrapers, etc., besides the output of the car shops. The company will manufacture steel scrapers, warehouse trucks, steel wheelbarrows, grading machinery, mine cars, etc. Its officers are: President, Edwin M. Miller; vice-president, Wm. T. McLean; secretary, Amos Townsend; treasurer, D. B. Wallis. Offices in the Heist Building, Kansas City, Mo.

NORFOLK PORTLAND CEMENT CORPORATION

The MANUFACTURERS' RECORD is advised that the Norfolk Portland Cement Corporation has awarded contracts for the construction of its proposed plant on the Southern branch of the Elizabeth River near Norfolk, Va. This plant will comprise a building 650 feet long and 225 feet wide, of steel construction, costing about \$150,000, and cement machinery, boilers, engines, etc., costing about \$500,000. The plant will have a daily output of 2500 barrels of Portland cement, and John Greenall of Allentown, Pa., is the constructing engineer in charge. Several months ago the MANUFACTURERS' RECORD reported the organization of the company, its capital stock being \$850,000, and it is a branch of the American Cement Co. of Philadelphia. R. E. Griffith is president of the Norfolk Company, with offices at 603 Pennsylvania Building, 15th and Chestnut streets, Philadelphia.

The Southern Appalachian Good Roads Association, Dr. Joseph Hyde Pratt of Chapel Hill, N. C., president, has issued a bulletin containing an interesting compilation of the proceedings of the first convention of the association, held at Asheville in October.

World-Wide Combination Against Cotton Growers.

[An interview with the editor of the *Manufacturers' Record* in the Atlanta Constitution of November 29.]

Under the leadership of the cotton spinners of Europe a combination is being organized throughout the world for the express purpose of depressing the price of cotton. Mr. C. W. Macara, chairman of the International Federation of Cotton Spinners, is quoted in the London *Financial News* of November 20 in an interview in favor of a continuation of short-time running by cotton mills as saying:

"We have ample cotton with the carry-over from last year, and by a continuance for a considerable period of the present short-time running we shall obtain that control of the trade which will insure cheap cotton and a steady market, and that is what we desire."

It is well known that for more than three-quarters of a century the English cotton spinners have sought to obtain the domination of the cotton trade by forcing prices to the lowest point possible, but it has remained for Mr. Macara, as the head of the International Cotton Spinners, to officially proclaim that the present plan is for the purpose of enabling the cotton spinners to "obtain that control of the trade which will insure cheap cotton."

Nearly three-quarters of a century ago an official report made to the English Parliament in connection with the effort that was then being made to develop cotton-growing elsewhere than in the Southern States, in order to beat down the price of American cotton, suggested that it should be the policy of English spinners to force the price of American cotton to the lowest point possible in order to compel American spinners to increase the number of bales raised in the hope that they might receive the same aggregate amount of money as they had formerly received for a smaller number of bales at a higher price. This has been the game ever since. But I cannot recollect finding any such frank acknowledgment of this in the proceedings of English spinners since that report was made until Mr. Macara so frankly admits that this is the plan. In this interview Mr. Macara says:

"We have got to bring about a reasonable price, and thus enable the 700,000,000 people in India and China and the populations in England and on the Continent who depend for their clothing on cotton to secure it at a price they can afford. * * * The short-time arrangements in Lancashire are precisely what they were when we fought and defeated the 'Sully' corner; that is, the mills are running 40 hours instead of 55½ hours each week. It will be necessary to continue much longer. Our short-time campaign today, on an international basis, is on a much bigger scale than when, with short time, we broke the 1904 corner, and a continuance of international short time is the only means of preventing a repetition of the disastrous trade of last year for spinners, manufacturers and merchants. * * * In view of the enormous enhancement in the price of cotton, that body is unanimously of opinion that it would be decidedly against the interest not only of the cotton trade, but also of the consuming public, if the present curtailment of production should be discontinued. By a resumption of full time margins would be further reduced and exceedingly high prices of cotton would continue. The burden of the trade and consuming public may be judged from the fact that if the American crop was disposed of at the present high level of prices the increased value, in comparison with the range of prices in force six months ago, would amount to approximately \$250,000,000, of which 60 per cent., or \$150,000,000,

would be borne by the European cotton industry."

This brutally frank statement put forth by Mr. Macara should solidify the entire business interests of the South in order that the cotton farmer of this section may get a fair value for his crop. Because wheat and corn have of recent years almost doubled in price no one has heard of any world-wide combination of millers to beat down the price of grain. Here and there a few millowners have at times criticised the advance in wheat as unfortunate, but the broader-minded flour millers have recognized the inherent reasons for a justifiable increase in the price of grain, and have rightly met the situation, to the vast benefit of wheat-growers. Under the higher prices of grain which have ruled of recent years Western farmers are enjoying greater prosperity than they ever knew, and from that prosperity has come the wonderful progress of the great West. It is due to the prosperity of the Western farmers, based on higher prices for grain, that much of the quick revival in the industrial life of the whole country has come about. That is the way in which the flour millers of the West have met the situation. But the cotton spinners, under the leadership of European spinners, and into which some Southern spinners have permitted themselves to be drawn, have formed a gigantic combination, backed by all the vast wealth of the cotton-manufacturing world, for the purpose of beating down the price of raw cotton to the point emphasized by Mr. Macara where the spinners "shall obtain that control of the trade which will insure cheap cotton."

The London *Financial News*, in commenting on this interview with Mr. Macara, says that "this is a war campaign, and if the campaign be successful it will break down the American corners which so frequently come into aggressive being, and will tend largely to the end many in the cotton trade aim at, namely, a plentiful supply of cotton at a reasonable price."

Here is the old story, three-quarters of a century old—a plentiful supply of cotton at a cheap price.

When the committee of English spinners came to this country a few years ago to study cotton-growing conditions in the South, on their return from that trip I met them, and in discussing the cotton price situation some of them were very bitter against the effort of the South to secure a better price for cotton. They said that the higher price then prevailing for cotton was practically taking the clothes off the backs of the poorer people in the Orient, who were unable to buy cotton goods based on high-priced cotton. In reply I said that for a good many years the cotton-growers in the South had been almost bereft of clothing by reason of the fact that they had been forced to sell cotton at much below its real value, and sometimes below its actual cost, and I added that the South had now come to a realizing appreciation of its own strategic situation in cotton production, and that if any more undressing had to be done it would not be by the cotton-growers of the South, but would have to be done by the cotton manufacturers of Europe, who had been getting far too large a percentage of profit as compared with what the cotton-growers had earned. In further discussion with them I said:

"Suppose England owned practically all of the iron ore and coal supply of the world. Would it be the policy of the English people to sell its ore and coal at less than the cost of production, or at a bare

living cost? Or would they not, on the other hand, recognizing the strength of their position and the value of their ore and coal to the world, get the highest possible price and secure their share of wealth to which the ownership of such a monopoly of coal and ore would entitle them? Would England under such conditions remain in comparative poverty merely that the rest of the world might be enriched at its expense?"

To this they had no reply. The South holds a practical natural monopoly of cotton production as great as if three-fourths of all the coal and iron ore in the world were found in England. Under these conditions it behoves the people of the South, not only as an asset of the whole South, but as a national asset, to stand together for not merely a living price, but for a profitable price for cotton. Fifteen cents a pound for cotton means great prosperity to the South. It means the rapid growth of every town and city in the South. It means wealth with which to extend educational facilities; wealth with which to build churches, to build roads, to improve every condition of life. The wealth that will come from cotton at 15 cents a pound will be like the water in the great irrigation schemes when, as it spreads over the land, it quickens with bloom and blossom the parched desert and makes a garden spot out of what had been a dreary waste. This year's cotton crop, with seed included, should bring into the South \$1,000,000,000. Under such prices it is true that the English spinners, as Mr. Macara says, would be compelled to pay \$150,000,000 more than they have heretofore paid, but the cotton growers of the South are more entitled to that \$150,000,000 of added wealth than are the people of any other section of the world. They have rightly won it. It is theirs both by right and will be theirs by power if they stand united for it, as against the power without right of the International Cotton Spinners in their determination to bring all the manufacturers of the world into a combination to break down the price of cotton in order that they may "obtain that control of the trade which will insure cheap cotton."

The fight of the cotton-grower for a good price for cotton is not his fight alone. It is a fight the winning of which will benefit every industry, and directly or indirectly every man, woman and child in the South. Some of the Southern cotton-mill people are united with the International Cotton Spinners in this effort to break down prices under the belief that they are justified in this, and that high prices for

cotton will leave no margin for the manufacturer. If a mill is so situated that by reason of adverse conditions of any kind it cannot manufacture cotton goods at the present price of cotton, and is not willing to take the business risk of continuing to run and store its goods until the market for cotton goods advances, then that individual mill is justified in shutting down or running on short time. That is wholly an individual matter. But for the cotton spinners of this country who, broadly speaking, have reaped great profits in the past, the mills of New England and the mills of the South alike, to unite in the world-wide combination for the avowed purpose, as Mr. Macara puts it, of breaking down the price of cotton, is an unjustifiable combination against the interests of the producer.

If the world could absorb the great crop last year, when throughout the world there was almost universal industrial and general business depression, it is absurd to say that the world cannot absorb the present crop at present prices, considering the wonderful revival in business activity and the thrill of new life which is seen in every part of America and to a very considerable extent throughout the world. Against depression in railroad and industrial interests last year we now have abounding activity. Last year the United States produced about 15,000,000 tons of pig-iron, and it was difficult to sell it on a basis of, say, \$11 to \$12 a ton, Birmingham prices. At the present time the United States is producing at the rate of nearly 32,000,000 tons of pig-iron, and it is going into consumption about as rapidly as it is being produced, and on the basis of \$14 to \$15 a ton Birmingham price. Here is an advance of about \$3 a ton, notwithstanding the fact that production is now running at twice the output of last year. If that condition can prevail in the iron trade, why is it not possible in the cotton trade? Moreover, the better employment of people everywhere, the increased railroad activity, the great demand for labor in coal mines and iron and steel interests is making it possible to greatly enlarge the consuming capacity of the country for cotton goods. Higher prices for wheat and corn are making it possible for the Western farmer to buy more freely of cotton goods than ever before. In the face of these facts we have this world-wide combination so openly avowed by Mr. Macara for the express purpose of beating down the price of cotton in order to take from the South the prosperity due to profit on the cotton to which the cotton-growers of this section are justly entitled.

The South as the Provisioner of the Country.

Mansfield, La., November 17.
Editor *Manufacturers' Record*:

It must be a great pleasure to you to sit in your office, and while glancing your eyes over the development of Southern resources during the past 20 years be able to say: "I told you so."

It was one of my pleasures back in 1893 to 1895, while doing the editorial work and advertising for the Mobile & Ohio Railroad, to keep a scrap book of your arguments and predictions for the future of Southern development. While I was a firm believer in the possibilities that existed all over the South in every avenue one might wish to choose, still some of your predictions were so immense that it seemed they could not come true within the time you set for them.

It is different now, and one can find few so far behind the times that they do not realize the immensity of the past, present and future of Southern development. A few years ago it took a log chain and a yoke of oxen to drag a man down South on

a trip of investigation. Now they are coming down without any urging. It is an easy matter to find numerous millionaires scattered over the South—men who came here less than 20 years ago as poor men.

When in 1888 the literary waters were troubled by the book "How to Get Rich in the South" the author was, in polite language, called a liar by some of the literary reviewers. The things therein described have been done by many in all parts of the South.

I hope you may at the end of another 20 years be occupying the same editorial chair and have the satisfaction of reviewing the development of the South's possibilities, which no doubt will make the increases of the past two decades look trifling.

The West was made by men and money. With the same number of men and the same amount of money the South will go farther and make greater returns on the money. That wise old man at the head of

the Agricultural Department at Washington, Secretary Wilson, says that the day is coming when the North must look to the South for its meat! That must look strange to the men who have not even raised their own meat, and have thereby made the West rich. Have you ever figured out how rich the South would be if she had grown her own living for the past 40 years and had not gambled in cotton futures? Count it up. Give Wall Street one-half and the West the other half of all the Southern income from the farms during that time. See if it will not amount to about as much as the total wealth of the North at this time. Startling as Mr. Wilson's statement may seem to both the North and to the South, why not? With a shorter winter, and with two feed crops grown on the same land each year, and with the meat-producing crops that will not grow up North, when meat can be produced for half as much cost down here as up there, why will not the day soon come when the places of the ones who will not try to make what they should make will be taken by the young men who cannot buy farms up North on account of the high prices? The time was when they did not want folks from the North, but they have gotten thoroughly over that.

After living for several years in the South without buying a permanent home, I was attracted to this overlooked garden spot of possibilities, and have my sons located on farms. It came about from overhearing a lady talking on the train to another about good roads building, cheap lands, good crops, good health, good schools, etc. I did not believe that good roads and cheap lands could go together, but realized that if such were the case it was the place to invest. I found all the lady said was true, and I am very glad I was sitting just in front of her. Do you think good lands can remain cheap long with model roads building under the supervision of a Government expert? It will not take wide-awake folks, who are watching for lands, long to find this out, and then prices will soon soar.

It seems impossible that such a country as this could have been so entirely overlooked by the outside land buyer.

W. H. HARRISON.

NORTH CAROLINA PRODUCTS.

Testing Fruits and Vegetables on the State Farm.

[Special Cor. Manufacturers' Record.]
Raleigh, N. C., November 27.

In the southeastern section of the State there has been a great deal of development of the trucking interest, and J. A. Brown, the new president of the State Drainage Association, tells the MANUFACTURERS' RECORD that of the hundreds of families from the West who have come into that section, all are well pleased with their new homes, and that success has marked their efforts. Illinois, Indiana and Ohio furnished hundreds of these settlers, and a number of them live on what may be called the North Carolina black lands, than which none in the State is more capable of development. In Pender county an improvement company now gets a charter, this being the Watha, and it is its purpose to secure and erect manufacturing establishments.

Secretary Elias Carr and two other members of the Board of Agriculture, A. T. McCallum and K. W. Barnes, have returned from a visit of inspection to the State test farms in Edgecombe and Pender counties. There are five of these farms, the three others being in Iredell, Buncombe and Transylvania counties, and each does a particular line of work. The Pender farm is known as the truck test farm, and Mr. Carr says a great many tests are in



RALEIGH (N. C.) MUNICIPAL BUILDING AND AUDITORIUM.

Will cost about \$90,000; seating capacity of auditorium, 4500; proposals opened December 1; architect, P. Thornton Marrye.

progress there with vegetables, notably lettuce, which is being very carefully studied. Open-air lettuce is now being largely grown in that, the southeastern section, and the problem of irrigation is involved. Another special study on this farm is of grapes. Thousands of scuppernong seedling vines are growing, which have been fertilized by the pollen of various varieties of bunch grapes, in the hope that some hybrid of great value can thus be produced. The scuppernong is hardy, wonderfully prolific, but does not grow in bunches, and is besides brittle, the grapes easily dropping apart, and hence being hard to handle. The production of a bunch hybrid would mean a great deal to shippers. The scuppernong never fails, though some years the vines are better fruited than others, and the wine is always in request, the grape being also used for making brandy.

The peanut-growers are anxious that a test farm for that important crop shall be provided. It seems this will hardly be done at present, but that the next farm to be established will be for very particular tests of tobacco. What is known as the old bright tobacco section, namely, Person, Caswell and Granville counties, seeks to secure this farm. The eastern bright tobacco belt, which puts its tobacco on the market long before curing begins in the old belt, produces a thinner leaf, which is largely used for making cigarettes and cigarette tobacco for the far East, that from the old belt being used in the United States.

At the National Apple Show at Council Bluffs, Iowa, North Carolina won great and unexpected honors. One cup was awarded for the best collection of fruit from the eastern part of the United States; another for the best collection of pecans, the third for the best collection of canned articles, vegetables and fruits, etc., and the fourth for the best peanuts. North Carolina won third place with the United States sweepstakes. Dr. Hutt told Governor Kitchin and Commissioner Graham that if the State Agricultural Department would give him \$500 for next year he would make a collection, load a special car with it and would go right in to win not only the United States Sweepstakes, but no end of other prizes.

FRED A. OLDS.

Putnam County's Resources.

The Florida *Times-Union* of Jacksonville in a recent edition devotes a section to a review of Putnam county's resources and possibilities. The section referred to

is illustrated, and contains articles relating to the taxable values of Putnam county, pecan growing, physical improvements, farm products, trucking possibilities, prosperous towns and other features.

The Marion Progress.

Succeeding the McDowell *Democrat*, the Marion *Progress* of Marion, N. C., presents as its first issue an edition reviewing the commercial and industrial advantages and opportunities of Marion and vicinity. The publication is illustrated, and contains a number of articles interesting from industrial, educational and

social viewpoints. Its owners have equipped their plant with modern machinery, type, etc., and will devote their energies to boosting Marion and McDowell county, in which work they desire the cooperation of their people.

The Board of Trade of Denison, Tex., Mr. C. Wilbur Coons, secretary, is circulating the interesting pamphlet heretofore mentioned in the MANUFACTURERS' RECORD, entitled "Industrial Texas," and published by the Texas Commercial Secretaries' Association for the Texas Prosperity Club, Mr. B. B. Paddock, president.



A \$240,000 STRUCTURE FOR CHARLESTON, S. C.

This office building to be erected by People's Building & Investment Co., W. G. Rhett, president; steel, granite and brick construction; eight stories; steam heating; electric lighting; electric elevators; architects, Thompson & Frohling of New York; contractors, Simons-Mayrant Company of Charleston and Hedden Construction Co. of New York.

SOLVING THE ROAD PROBLEM IN VIRGINIA.

[Written for the Manufacturers' Record.]

By WILLIAM ROMAINE TYREE.

The solution of the problem of good roads in Virginia lies with its people. Upon their intelligence, thrift and patriotism is to depend whether the counties are to be brought into easy communication with the centers of trade, or whether the cities of the Commonwealth are to become an increasing market for the products of the farm. No era has ever seen this accomplished by sloth or partisan policies, nor will such results ever be obtained through such instrumentalities; a right thinking of a great industrial work is first necessary to attain desired results.

The great highways of the Continent and the British Isles have not grown from fable, but are due to the military foresight of a great captain, and in these same highways, once built to serve the needs of armies, are now to be found the arteries of "all roads leading to Rome." The prosperity of small States has been made by just such industrial foresight. And though during the reign of the Georges the thoroughfares of England were almost as dangerous from their physical condition as from the highwayman, this condition remained for comparatively a short period when the necessity was shown for improvement, and today road-making and road-mending is a part of the every-day life of the Briton, as well as of the Teuton and the Gaul.

The American Republic, having had little or no childhood, has been busy from its birth—until the last score of years—in providing itself with a provisional government and in maintaining its sovereignty. For these reasons little thought has been given to internal improvement, if we except sundry appropriations in the interest of shipping—railroad development being due solely to private enterprise.

Under such circumstances the South as a whole has suffered more than the Central and Eastern States, industrial conditions being so entirely different.

At first glance one might say: "Why the South a farming community and not have good roads?" But let us consider that the labor of these sister States was utterly demoralized after the Civil War, likewise their currency and system of taxation, there being nothing in those dark days upon which to base taxation.

In Virginia before this period of civil strife the landholding class built and kept in condition the main highways of the county through the work of their slaves: there was no attempt at State or national aid. Consequently, after the smoke of battle had passed, leaving the Old Dominion desolate and oppressed under its mighty burden, little thought was or could be given to the improvement of its highways beyond mere necessity.

The surrender of Lee at Appomattox brought new conditions into the lives of the Virginia people, as likewise to those of the entire South; class distinction was no more; every able-bodied man, white or black, was a laborer. Towns began to grow into cities; hamlets into towns; the white man and the black man began to up-build the waste and seared lands. No baron through private subscription maintained the county's roads; all were equal, and competition between the large and small farmers began. Manufacturing centers became established and railway depots came into existence.

During all these days of development out of the old into the new, our highways remained stubbornly unconscious of their part in the drama, and, with some exception,

have remained so almost to the present day.

"Necessity," however, that prod to the hitherto unconscious, has at last brought to the people of Virginia the realization of their needs, and a reformation is at hand. Railroads cross the State from east to west and from north to south; towns and cities increase; new villages spring up; the demand for the products of the farms and the forests cannot be met. The resident of the city becomes more solicitous of the welfare of his country cousin, and the inhabitant of the country district wishes more comforts in his home; better education for his children; less time consumed in going to and fro from market, and more ready access to the outside world. Likewise, we must not forget the motorists; he is becoming an influential factor in our internal improvement; he wishes, above all, that boon, good highways.

One note of warning is that "he who runs may read" the signs of danger in our apparent neglect to render the rural conditions of life as attractive as possible, and the most salient defect in our internal government, one which renders life upon the farm odious, is the lack of easy communication with the outside world. Persons of refinement, even those who wish this most, are unable to get the proper instruction for their children, teachers of both sexes disliking the confining atmosphere and inaccessibility of the country, the poor accommodations and still worse markets which the tiller of the soil must accept. The lack of congenial companions and all that makes life enjoyable to those of intelligence produces a feeling to the rural dweller of being out of touch with towns and cities, which may, perchance, be only distant 100 miles or less, in which places the accessories to comfort and enjoyment are readily obtainable.

It is, therefore, open to view why such immigration continues in such alarming proportions. Nowhere is this more noticeable than in Virginia. Not only have Virginians emigrated to the four corners of the globe, leaving their State stripped of its best talent, but rural communities are becoming denuded each year as the county sends its quota to swell the ever-increasing city. So marked has this become that political economists are now turning their tardy attention to the cause and the remedy, and have found such remedy in the imperative attention to be paid to placing the highways of the State in suitable condition for quick and easy traffic.

Now that we have reached the remedy, let us study the most practicable and least expensive method of putting such remedy into effect:

The State of Virginia may be conveniently divided into five principal regions (the fifth lying now in the State of West Virginia). Of these we will treat in geographical rather than a geological order, each region containing certain distinct elements of soil which more or less blend into those contiguous thereto.

The first, which may be called the Tertiary marl region, embraces all that portion of the State included between its eastern boundary, the Chesapeake Bay and the Atlantic, and a hypothetical line intersecting the principal rivers at their lowest falls. Various beds of clay and sand, nearly horizontal in position, abounding in fossil shells and the remains of large marine animals, form the characteristic strata of this division of the State, while occasional bands of iron ore and beds of green sand and a small pro-

portion of gypsum, occurring in connection with one of the fossiliferous deposits of the region, are among its other materials of value.

The second division, the most difficult to define with any degree of accuracy, is comprised between the hypothetical line above mentioned and the western flank of the Blue Ridge, including under this title the range very improperly denominated the Allegheny Mountain in Franklin and Patrick counties, and known to geologists as the Primary region, consisting of red sandstone similar to the old red sandstone rocks of Europe, small deposits of gold and bituminous coal (in the counties of Chesterfield, Goochland, Powhatan and Prince Edward), slates, soapstone, iron ore, limestone and other minerals.

The third general division, commencing near the western flank of the Blue Ridge, comprises all the region generally called The Valley, extending westward in the counties of Berkeley, Frederick, Shenandoah and Rockingham, to the base of the several ranges called the Little North Mountain, in Augusta and Rockbridge, nearly to the base of the North Mountain, and consisting of limestone strata of vast extent, hydraulic lime, marble, travertine or deposit marl, slate, iron ore, and in the south lead ore.

The surface of the fourth general division is occupied by chains of mountains. In general it may be described as comprised between the western limits of the great Valley formation and the front ridge of the Allegheny, the Greenbrier and Muddy Creek mountains, and consists of anthracite, pseudo-anthracite, or semi-bituminous and bituminous coals, sandstones, limestones, grits, iron ore and numerous thermal, chalybeate and sulphurated springs, possessing collectively a greater amount of mineral treasures than almost any other territory of similar extent.

The fifth and last division lies within the State of West Virginia, and is known as the great coal and salt area, with abundance of sandstone, producing in the valley of the Kanawha a grayish granite.

These above-mentioned divisions comprise the several distinct regions of the State from a geographical and geological standpoint, each having subdivisions more or less differing in soil and extent.

Now that we have disposed roughly of the physical formation of the State, let us turn our attention to the advantages and disadvantages of road-making in the several divisions, and in which the natural deposits of any certain region form the most important item in highway development; for roads, to be built at the least cost per mile, must draw upon resources at first hand. By using the process of elimination we will arrive at that geological section of the State which has at present the worst roads, and where it will be more expensive to build and maintain a public highway.

The Tertiary marl region may be disposed of in few words: Abounding in clay and sand, and having deposits of marine matter, the process of road-building resolves itself into one of labor, for the material at hand is easily obtained, and after the proper foundation of clay sand is laid and outer crown of oyster shells (crushed) or other fossil matter rolled with a steam roller, there remains a road of splendid material, smooth, and a well-drained one, which will turn water during the rainiest of seasons. The question of labor and cost will be taken up under separate headings.

The third geographical division, namely, that portion called The Valley, and to which we will add the counties of the southwest, where the limestone strata likewise predominates, is also easy of solu-

tion, for here the highway foundation may be made as durable and smooth as the ancient roads of Rome—this through the macadam process of crushed limestone where it is found in abundance, and mending by the addition of fresh material as occasion may require. Such foundation to be made of heavy crushed limestone mixed with clay, the use of a steam roller, finally placing a crown of the smallest variety of the crushed material, wetting, and again the application of the steam roller, not overlooking that most essential addition of proper drainage and ditching. A road of this character is, with careful mending, indestructible, becoming by constant use the best to be found, and costing about \$4000 per mile to build with convict labor, averaging about the same as the cost per mile of the first division (*supra*).

The fourth division, consisting of sandstone and slate, while not as good material as the limestone, furnishes naturally an excellent highway, for instance, in the counties of Highland, Bath, Alleghany, etc. Here the clay soil is of a yellowish color, very adhesive, and, when mixed with the slate, makes a strong compact mass. This road should have a foundation of clay, sandstone and slate, rolled, sprinkled and a crown of fine slate well put on, the cost per mile being from \$4000 to \$5000 with convict labor.

The fifth general division I shall not consider at length, as the jurisdiction of Virginia may be said to end with the eastern boundary of this geological division. Suffice it to say, however, that the eastern portion is similar to our fourth division, and in its western half there is ample material from its granite formations which may be used much as macadam is in The Valley region. There is also to be found a very good quality of clay.

Thus we have reached that region known as Primary, extending from the lowest falls of the principal rivers to the western flank of the Blue Ridge. This section, while being difficult of definition by geologists, is also the most difficult for road-building, owing to the lightness of its soil and the absence of both marine deposits and limestone in workable quantities. The great difficulty is to obtain sufficient foundation, and having secured that, to get a crown material of durability to withstand for any length of time traffic and the heavy rains of the winter and spring months. This region will, therefore, be the bête noir of the advocate of good roads.

There appears, however, in many of its counties deposits of red sandstone and a species of soft granite in the southern and eastern parts, and a certain amount of limestone in the more northerly and western portions bordering on the Blue Ridge. In the latter sections, even though a certain amount of material must be transported a short distance, the main material should be macadam, certainly the foundations, with a crown of some lighter soil, such as sandstone or crushed granite where it can be secured, the whole built by the same process as that followed in The Valley, at perhaps a greater cost per mile, owing to the possible transportation of material. This manner of building should be followed in all counties where the hard limestone can be obtained at a reasonable expense. A foundation must first be laid, always endeavoring, of course, to use material at hand if of sufficient quality, but never using the light soil of this region for both foundation and crown by the now absurd method of a scraping road machine.

In the southern and eastern sections of this geographical region there is to be found a soil of a grayish color, very valuable for road-making, it being the disintegrated particles of the soft granite; this deposit, where limestone cannot be ob-

tained, makes an excellent road even upon a clay foundation. Its defect is, however, that it must be given careful attention, leaks promptly mended, and in very dry weather it should be sprinkled in order to take advantage of its adhesive properties; otherwise, being of light material, it readily blows away. The foundation of clay should be well and compactly built up and a crown of from two feet in the center to six inches on either edge of gray soil should be used, well drained and ditched, and some grasses of deep roots planted along either side. A road of this nature can be built and maintained at a comparatively small expenditure per mile.

As a last resort, where none of these natural materials are found, or only appear in such quantities as to be useless, transportation from the nearest point must be resorted to. This, under the liberal offer of some of our railway lines (which will become universal), of free transportation of labor and machinery and material at cost, holds out to those desiring good roads a remedy which otherwise could only be obtained at great trouble and expense.

The next question to be answered is labor. How is it to be obtained and how maintained? There are several ways—by the old system of road-gangs under the supervision of the board of supervisors; by letting to contract, and lastly (the most effective of all), employing the convicts of the State penitentiary, the State furnishing a certain number to each county at the ratio of \$1 per day, which should be charged to the county's appropriation account with the State, the county to maintain such labor, furnishing guards, etc. This is by far the best system, for each day there is an effective force ready for work, the old road-gang and contract system being barren of results and the latter an expensive luxury.

The State commission should oversee the construction of all highways, and for such purposes appoint a competent engineer for a certain district comprising so many counties, the pay of such engineers to be provided for by the State. It should also have supervision over all matters relating to highways of a non-legal nature, questions arising under statute or the common law to be referred to the State Corporation Commission, the courts of the Commonwealth or the Attorney-General.

The State should hold in reserve for road improvement all money derived from the taxation of its railway lines, and out of such reserve and national appropriation pay to each county an amount double that which the county itself may subscribe, not to exceed, however, a certain amount, the county to raise its fund by the levy of a tax not to exceed 50 cents on the \$100 of all the real and personal property of its inhabitants. All towns and cities now exempt from road tax to contribute an amount not to exceed 20 cents on the \$100 of the real and personal property of its residents, to be used in the construction of all permanent highways leading into such town or city not exceeding five miles.

It is the writer's opinion that should the question of improved highways be taken seriously by the inhabitants of both State and Union there will result in a few years a system of roads that will remain a lasting benefit to posterity. What has been said in this article relative to Virginia may be likewise applied to every State in the South; that is, in the main, Houston, Va.

Mr. J. F. Batts of Garner, N. C., raised this year 226½ bushels of corn upon an acre of land on his Wake county farm, according to his statement in the Raleigh *News and Observer*.

LULL IN PIG-IRON.

But Activity in Coal in the Birmingham District.

[Special Cor. Manufacturers' Record.]

Birmingham, Ala., November 29.

Both buyers and sellers of pig-iron (particularly furnace operators) seem to be rocking along, resting on their oars. There is a disposition on the part of merchant interests to shade the base price of manufacturers 50 cents per ton, but so far this has had no "bearish" effect, furnace interests being unwilling to make the concession in order to try to place additional business. We hear of now and then some small lots of foundry iron being disposed of slightly under established base price of \$14.50 by warrant holders, yet the merchant interests here who hold the bulk of Southern warrant iron state most positively that \$14.50 per ton is the lowest quotation. From the buyer's standpoint we figure that under present conditions he feels he is amply covered for a reasonable length of time ahead, and no doubt a large number of them are in this shape. From the manufacturer's standpoint it appears he realizes that there has been a pretty good buying movement, and as a consequence thereof there is little business in sight at this time. The conclusion, therefore, is that there is a natural lull in the market, with both parties supplied reasonably well. A traveling representative of one of the large interests here reports that recently he covered the States of North Carolina, South Carolina, Georgia and parts of Florida and Mississippi, and while the volume of business he received was comparatively small, he found the different foundries running full time and melting heavily. This shows that there is a tremendous melt going on even in the South, and accounts, in part, for the shortage of Southern foundry iron in the Middle Western territory, comparing present conditions with those existing in 1907. As an illustration of the comparatively small accumulation of furnace stocks on the yards of manufacturers, our largest producer reports practically no iron on its yards at this time, and still another large producer not even quoting iron for prompt shipment on account of having no iron available for such delivery. Charcoal iron in the South is holding firm at \$22 per ton at the furnace.

There has been no change in the cast-iron pipe situation the past week. Inquiries are reported as coming in more freely than the week previous, and stocks moving at the rate of production. It is understood that contracts will fully carry manufacturers through the first quarter of next year. "As to prices," said a representative of one of the large interests, "they are sure to go higher, but I cannot just say now when such conditions will obtain, not very far in the future, I should say." Following prices are firm per net ton f. o. b. cars Birmingham: Four-inch, \$25; 6, 8 and 10-inch, \$23; 12-inch and over, average \$22; fittings, \$60, with \$1 per ton extra for gaspipe.

About the only demand for old material has been heavy melting steel, which has sold at a fair price. Wrought and cast scrap are inactive, except in the case of seller, who wants to move some at a concession. The dealers here have evidenced no disposition to force their scrap on the market, and seem inclined to look upon conditions as being largely governed by the pig-iron market. A lull is on, they say, and the best we can hope for, under present conditions, is to stock up and wait for another buying movement. Several carloads of steel scrap and old car wheels moved the past few days. Following prices per gross ton Birmingham prevail:

Old iron axles, \$20 to \$20.50.

Old iron rails, \$15.75 to \$16.25.

Old steel axles, \$17.75 to \$18.25.

No. 1 railroad wrought, \$14 to \$14.50.

No. 2 railroad wrought, \$12 to \$12.50.

Dealers' wrought, \$11 to \$11.50.

Old steel rails, \$12.50 to \$13.

No. 1 machinery, \$12.50 to \$13.

No. 1 steel, \$13 to \$13.50.

Old standard car wheels, \$13.75 to \$14.25.

Light castings, stove plates, \$9.75 to \$10.25.

Cast borings, \$6 to \$6.50.

The demand for domestic and steam coals is exceptionally good, and in some instances there is trouble in supplying what is wanted by consumers. Prices are some higher, due to scarcity of the article. Coke, in sympathy with coal, is bringing good prices, dealers getting \$3.75 to \$4 for foundry coke and furnace coke of good quality, \$3.50 per ton at the ovens. The demand for coke is somewhat greater than the supply. On the first of the coming month the miners will receive an advance of two and one-half cents per ton over present prices of mining coal, and other workmen in and around the mines and coke ovens in proportion. This is received by them as good news, and everyone seems satisfied.

Carolina Municipal Improvements.

[Special Cor. Manufacturers' Record.]

Durham, N. C., November 30.

As evidence of interest in road-building, one Durham engineer has under his direction about \$275,000 in contracts.

Not more important is this feature than the number of towns of small size which have essayed to put in modern sewerage and filters. Gilbert C. White of this city has a representative amount of this work over North Carolina, and its giant scale is somewhat reflected in the figures which have in part been made public and in part not.

The town of Sanford, on the seaboard, has made plans for seven miles of sewerage at \$30,000 rates, and will begin work the first of the year. High Point has put \$28,000 in improvements upon the filter, reservoir and in rehabilitation of the plant. By January 1 this town will have one of the State's best water supplies.

At Hickory, 58 miles west of Salisbury, there are voted bonds of \$60,000 for street improvements, the issue having been made known in the MANUFACTURERS' RECORD. Ten thousand square yards are to be put down in granolithic sidewalks, wood block and other pavements and macadam.

Hillsboro finishes the latter portion of December \$10,000 in street improvements, and the \$200,000 Alamance county issue of bonds can now show some splendid results. That issue contemplated the putting down of 45 miles of road, and 22 have been graded. Five miles have been macadamized and four of the concrete bridges built. Four outfits are on the job. There are 14 bridges under construction, the longest of which is 120 feet. All of this work is under Mr. White, who is consulting and directing engineer.

Meanwhile the County Commissioners of Durham continue to order the extension of the roads to connect with Raleigh on one side and Oxford on the other, completing the system and encouraging the capital-to-capital project. W. T. BOST.

To Operate in the South.

With its officers having a great faith in the wealth of the undeveloped natural resources of the South, and believing that with proper and competent development and management they will pay handsome returns on the investment, the White Investing Co., 43 Exchange Place, New York city, has been incorporated and will pay particular attention to the development

of Southern mining and other natural resources, although it will also undertake the development and management of good properties located anywhere.

The White Investing Co. has an authorized capital stock of \$5,000,000. Of this, \$2,750,000 has been paid in full and invested in properties and about \$1,250,000 additional will be issued at par to provide cash working capital, making the outstanding capital \$4,000,000, with \$1,000,000 of stock in the treasury.

The object of the company is to purchase, for investment, properties and securities which will prove profitable, and primarily to acquire and retain a controlling interest in enterprises based on natural resources, whether mining or manufacturing, end to develop, finance and manage them.

The company will be divided into three departments, including the executive department, which will locate new enterprises and be responsible for their management, and which will be under the immediate supervision of the president, Mr. W. F. White, formerly vice-president and general manager of the Cincinnati Edison Electric Co., and later vice-president of the North American Company; the financial department, which will provide for financing the company's operations and maintain a selling organization for placing the securities of the company's subsidiary organizations, and which will be under the supervision of Vice-Presidents John Quitman Lovell of Baltimore, Md.; Wm. Barrett Ridgely, formerly Comptroller of the United States Treasury, and C. B. Humphrey, formerly manager of sales of the Westinghouse Electric & Manufacturing Co., and the engineering department, which will examine and report on enterprises under consideration and be responsible for the engineering and technical operations of the company's properties, under the supervision of A. A. Blow, M.E., who is well known in mining circles.

Oklahoma City's Water-Works.

[Special Cor. Manufacturers' Record.]

Oklahoma City, Okla., November 27.

On December 6 the people of this city will vote on an issue of \$150,000 bonds for water-works extension.

The Oklahoma City water system, owned by the people, represents an investment of approximately \$650,000. The pumps of the plant take the water from the North Canadian River at a point 150 feet from the west side of the pumphouse and deliver it into the first sedimentation basin. Each pump is capable of delivering 5,000,000 gallons of water each 24 hours, making a total low-duty service of 10,000,000 gallons of water. Of the high-service pumps, the two smaller are capable of delivering into the mains at high pressure each 3,000,000 gallons and the larger pump 6,000,000 gallons per day of 24 hours.

The distributing system consists of 70 miles of water mains, and serves the greater portion of the city through 7500 services. From 5,000,000 to 8,000,000 gallons are used each day by the consumers of Oklahoma City. While the entire equipment of the water system is modern, and, according to the best knowledge of hydraulic engineers, it has to be extended and enlarged every year in order to meet the demands of the rapid growth of Oklahoma City. GEORGE B. SAUNDERS.

To Settle Hollanders.

Prominent citizens of Wilmington, N. C., have undertaken to give financial endorsement to the plan of Dr. Frederick van Eeden of Holland to colonize in Eastern North Carolina at least 25 families of expert Hollanders who will engage in intensive farming.

SOME TEXAN CITIES REJOICING IN THEIR STRENGTH

IN PRAIRIE TEXAS.

Temple's Growth Altered by Railroad Extensions.

[Special Cor. Manufacturers' Record.]

Temple, Tex., November 24.

The "Queen of the Prairies." "A live town, of live people, for live people." "No place for the man without ambition." These are some of the headlines of the literature issued by the Temple Commercial Club, and no matter whether one visits the city for a few hours or a few days, he is certain to be impressed with the truth of these claims.

Situated at the junction of the Gulf, Colorado & Santa Fe and the Missouri, Kansas & Texas railroads, and the western branch of the former; on the high prairies of Central Texas; in the famous black lands of Texas, where cotton, corn and other field crops grow to the greatest perfection, this beautiful little city of 15,000 progressive people occupies a most enviable position among the many young cities of Texas. In all my travels through the State I have found few towns or cities of more progressive and aggressive people than those of Temple. As might be expected under such conditions, these people are doing things worth while; they are building a city which will stand as a monument to their enterprise for generations and as an object-lesson for other places of less enterprise and ambition to pattern after.

Though a comparatively young city, there is to be found here evidences of thrift rarely found in cities of twice the size. There are many blocks of substantial and costly business buildings; whole sections of the most attractive residences; handsome houses of worship; stately school buildings, and around all there is an air of refinement which betokens the very best class of citizenship.

Besides all this, there is an air of bustle indicative of enterprise to be found only where things are being done on a large scale. I am told that nearly 500 dwellings have been erected here within the last 12 months, many of which are beautiful and costly structures.

In the business quarter I noticed many substantial buildings under construction. Among the latter is a very handsome bank and office building five stories high, of most attractive architecture; a four-story annex to one of the leading hotels of the city. These improvements alone cost \$85,000 and \$50,000, respectively.

But it is especially the many commercial and industrial enterprises of Temple that is making her a city of importance. Besides a very large number of retail establishments, there are located here three wholesale grocery houses, one wholesale hardware and one wholesale produce company, each of which is doing a large volume of business. There is also one of the largest wholesale poultry houses in the country, which, I am told, ships during the fall and winter months an average of three cars of dressed poultry and eggs per day. Another important industry is a large candy factory, employing about 75 hands and keeping six traveling salesmen on the road. This concern does a business of over \$250,000 annually.

There are also two large cigar factories here. Other enterprises are a foundry and machine shop; a mattress factory; a sash, door and screen factory, and two large planing mills. The combined force of these enterprises put in circulation approximately \$100,000 annually for their payrolls.

Besides the above are a large flouring

mill, two cottonseed-oil mills, a compress having 80,000 bales capacity annually, a 50-ton ice plant, a \$100,000 electric-light and power plant and a \$275,000 waterworks. The source of water supply is Leon River, and is piped to the city a distance of six miles. At that point a dam has been constructed across the river, backing the water up 10 miles and giving a depth of 10 to 30 feet. A filtration tank is provided, and the water passes through that before reaching the city. A sewerage system is also provided for the entire business section and the principal residence sections.

An electric street-car system is another feature of Temple. This company also runs an interurban line to Belton, the county-seat, distant about eight miles. The same company is discussing the question of building a line to Waco, 35 miles north of here. This would open up another considerable section for the retail trade of Temple and add greatly to her prestige as a trade center.

Temple is peculiarly fortunate in her railroad facilities. Having the main line of the Missouri, Kansas & Texas through Texas to the Gulf, which provides transportation both north and south, reaching from the Gulf to the Great Lakes; then the Gulf, Colorado & Santa Fe system, which, while covering practically the same field, yet provides competing lines, her business men are enabled to reach almost every point of the compass. But she has yet another outlet, the western branch of the Santa Fe system. This line runs northwest, and is destined to reach the great transcontinental route of the Santa Fe system at Mexico, on the western border of Texas; thence west to the Pacific, giving a route shorter by several hundred miles to the Pacific than over any other route. This new line is expected to be completed early in 1910. Another advantage of this new line will be to place Temple in direct rail connection with the Thurber and Graham coal fields of North Central Texas, and thereby give them two additional sources of cheap fuel. This will be invaluable to the manufacturing interests of the city.

The Missouri, Kansas & Texas has under consideration the building of a branch from here to Trinity to connect with its line running from Trinity to Colmesneil, where it connects with the Texas & New Orleans Railroad, thus giving direct connection with Beaumont and the oil fields, as well as with New Orleans and points on the Gulf coast.

These railroads are not only helping Temple by extensions of their lines, but are making substantial improvements within the city limits. The Katy is building a new and handsome depot, while the Santa Fe is also building both a depot 60x290 feet and a large hotel and eating-house, the two to cost the sum of \$190,000; also an immense storehouse for the Texas divisions of their roads to cost \$65,000. The same company is now making extensions of trackage inside the city limits to the amount of 45 miles. The shops, terminals, depots and all other improvements of this system covers 300 acres inside the city limits.

Other features of Temple indicative of a modern city are her hospitals and sanitarians. These are the Kings' Daughters, the Temple Sanitarium, noted for its fine equipment in surgery, and the Santa Fe Hospital, reputed to be the finest railroad hospital in the Southwest.

The city has recently let the contract for paving 24 city blocks. As an evidence

of the enterprising character of her citizenship, it is stated that her property owners are paying for paving the streets, while the city pays for the street crossings only. This condition, or rather this method, is rarely pursued in this section of country, and it certainly speaks volumes for enterprise of these people.

As an evidence of the intelligence of the people of Temple I need only say that they have already invested \$110,000 in their school buildings, and will vote very soon on an additional \$100,000 bond issue for building other school buildings and improving old ones.

Here are some of the new enterprises wanted: A modern 150-room hotel; additional wholesale and jobbing houses; a large sash, door and screen factory; an up-to-date commercial college; an overall factory; a harness factory; a cracker factory; a mattress factory; a knitting mill. Citizens of Temple stand ready to render substantial assistance to experienced men of means desiring to engage in any of these enterprises here.

A live Commercial Club is another asset of Temple, and a very important one, too. It is made up of the leading men of the city, while it is organized on the most practical lines of most commercial clubs, having standing committees on railroads, interurbans, civic improvements, conventions, industries and factories, local entertainments, good roads, trade conditions, public improvements and publicity. To this commercial organization and the active co-operation of these various committees and the citizens generally is attributable the wonderful growth and prosperity of Temple. But to Wm. M. Woodall, secretary of this organization, perhaps more than to any other member, is due the usefulness and success in its most important work.

W.M. C. CLOYD.

NAVASOTA'S ATTRACTIONS.

Opportunities There for Several Great Industries.

[Special Cor. Manufacturers' Record.]

Navasota, Tex., November 25.

Navasota occupies a position on the map of Texas peculiar to itself. Only a few miles from the old town of Washington, once the capital of Texas, near what is now the head of navigation of Brazos River, distant from Houston 70 miles, from the Beaumont oil field 135 miles, from Austin and Waco each 115 miles, thus being in the center of a very large trade territory of the most productive agricultural lands of the entire State, it would be difficult to find a town more advantageously situated, either in this or any other State.

The town is now just 50 years old. Prior to that date Washington was a place of considerable importance, being not only the State capital, but also the chief commercial center of a very large territory and the center of social life of the then new State. Up to that date it was the point around which congregated men of note and influence in political, commercial and social affairs, men who then and afterward for many years exercised wholesome influence in shaping the destinies of what was to be, and what now is, one of the most important Commonwealths of the American Union.

But with the building of the Houston & Texas Central Railroad and the establishment of Navasota some five or six miles from the town of Washington, the decadence of the old capital commenced, and today that old town is only a memory, a sort of ancient history of

which all old Texans are justly proud.

But of the new town, Navasota, a most worthy successor of the ancient capital, quite a different story can be told. Today a little city of about 6000 people, with many institutions which go to make a modern city, it has evidences of wealth, with all that wealth implies. Surrounded by a country as fertile as may be found on any part of the American Continent; with soil of the deep rich hammocks of the Brazos River bottoms, the black waxy of the table-lands and the black sandy soil of the uplands, the agriculturist can, and indeed does, grow anything common to this latitude. Corn, cotton, rice, sugar-cane, ribbon cane, sorghum, oats, tobacco, millet, alfalfa, fruits and an endless variety of vegetables and berries grow here in the greatest profusion. These things are not only adapted to this section, but are, in fact, now being grown here in great quantities, both for home consumption and for shipment to markets in all portions of the United States. What is more, these things are grown not only in a small area surrounding the city of Navasota, but in a territory comprising in whole or in part the counties of Grimes, Washington, Madison, Brazos, Walker and Waller, all of which contribute in some measure to the commercial strength of this little city.

From 40,000 to 60,000 bales of cotton are marketed here annually, and Navasota enjoys the distinction of controlling the cotton markets over a territory within a radius of 100 miles. In addition to this, large shipments of cotton are concentrated here for compressing annually.

A cottonseed-oil mill, one of the first built in the South, is in operation here. This is also one of the largest in the South. A cottonseed-oil refinery of large capacity is also located here, and is one of the very important enterprises of the city.

Navasota has four railroads, with 14½ miles of trackage within the city limits, and 14 passenger trains daily. Two wholesale grocery houses are domiciled here, doing a very large business. A large number of retail establishments are located here, one of which, it is said, does an annual business of nearly \$250,000.

The assessed valuation of the city is \$1,500,000, being based on 60 per cent. of actual values. This includes both real and personal property.

The city owns a fine system of water-works, with unlimited supply of artesian water, obtained at the depth of only 450 feet. One of these wells, although comparatively shallow for an artesian well, has sufficient pressure to throw water 35 feet above the surface, a very unusual condition in such wells. This water is found upon an analysis to be free from impurities or objectionable minerals, and is said to be superior to the average artesian water found in the State.

A large lumber plant is located here, also a barrel factory employing a large force. The latter owns sufficient timber to run them for the next 20 years without acquiring more.

Two banks do the banking business of Navasota. A late statement shows capital stock and surplus to be \$260,000, with deposits of over \$500,000.

A number of manufacturing industries could find suitable locations here, and the people stand ready to render substantial assistance to men of means and practical experience. Either a yarn mill or cotton mill would find this an excellent location for those industries. The cotton available at this point would be anywhere from 200,000 to 300,000 bales annually. In addition

to that, water is abundant and fuel not only abundant, but also very cheap. Coal for fuel purposes can be laid down here at \$1.25 to \$1.35 per ton.

Another important industry which might be located here, and for which the greatest abundance of raw material is found here, is a building and fire-brick plant. With railroads radiating in eight directions and reaching many other good and growing towns, an immense business could be built up here in this line. Labor conditions for either of the above industries are quite favorable, as would be found the case by investigation; besides, there being considerable wealth here, practical men in these lines would find ready co-operation from the business men of the place.

An industry which I find to be greatly needed in many localities of this State would find most favorable conditions right here. This is a large creamery. When we consider the great cost of feeding dairy stock through the long winters of the North, as compared with the cost of feeding here, together with the further fact that men in the Lake States, for instance, carry on the dairy business and accumulate fortunes at the business, even when shipping a very large part of their product to this section, it must be apparent that there is more clear money to be made in the business here than is possible up there. The many native grasses found here, together with other grasses which are found to grow to perfection on these lands, such, for instance, as the rescue grass, which provides a perfect winter pasture, and alfalfa, which is found to be the finest dairy feed known, all these enable the dairyman to keep his stock in perfect condition throughout the entire season, and that at a minimum of cost. Furthermore, it is a known fact that dairy cows kept up on green feed produce the finest butter in the world. Now, beyond these facts let us see what other conditions favor the establishment of dairies in Texas. It is conceded that all the dairies now operated in the State cannot supply more than 10 per cent. of the population. After that the farmers cannot possibly supply more than as much more, or, say, allowing that the dairies and farmers together supply 25 per cent. of the population, thus leaving 75 per cent. to be supplied from some other source. Does it need a mathematician to calculate the possibilities of this important industry here? Surely not. I am told that even now fully 1000 dairy cows are available to the man or company of men who will take up this proposition with the citizens of Navasota. This number could doubtless be doubled in a short time.

Through the completion of the great lock on the Brazos River, just opposite Navasota, water transportation will be assured within a short time. Provisions have already been made for building a postoffice by the Government. Churches and fine schools are among the local features of Navasota, and of the latter the citizens are very proud of the fact that their public schools rank with the best in the State, and that they are affiliated with the various universities of the land.

On the whole, Navasota possesses attractions which make her one of the most interesting points in Texas, and offers superior inducements to the investor, manufacturer or the homeseeker.

W.M. C. CLODY.

IN BANNER COTTON COUNTY.

Waxahachie the Seat of a Flourishing County.

[Special Cor. Manufacturers' Record.]
Waxahachie, Tex., November 27.

This city claims the distinction of being the capital of the banner county-producing county of the world. Nor is it an

empty claim, for it is a fact that in 1906 Ellis county, Texas, of which Waxahachie is the county-seat, produced a little over 150,000 bales of cotton. As far as the record shows, no other county in the world has ever equaled this. At the prices then prevailing for cotton the crop of that county brought the immense sum of \$8,250,000, while the cottonseed from that crop brought a little over \$900,000, making a total for the crop of \$9,150,000. Other field crops grown in that county during the same year were valued at \$6,000,000, while the value of fruit, vegetables, poultry, eggs and dairy products would swell the year's aggregate crop to the sum of \$18,000,000. According to the last census that county had a population of about 50,000. Allowing five persons to each family, this would mean a per capita of \$360, or \$1800 per family. It is claimed that the total value of all crops grown in that county in 1906 was about equal to the total taxable values of all property rendered for taxation in the county. Under favorable cropping conditions it is very probable that the crop of 1910 will exceed the above, for the reason that more land will probably be in cultivation then than in 1906. Surrounded with such conditions, it is not a matter of wonder that Waxahachie is a prosperous and growing little city of nearly 10,000 people.

To handle all this immense business Waxahachie has three banks, with a combined capital of over \$600,000 and deposits of more than \$2,000,000.

Waxahachie has many other sources of income. Among these we found one of the largest gins in the world. This enterprise is known as the Farmers' Gin, and contains 18 Murray 70-saw gins, with a combined capacity of one bale of cotton every three and one-half minutes, or a little over 171 bales every 10 hours. This gin is owned exclusively by farmers, with John M. Harrison as president. Mr. Harrison owns one of the largest cotton warehouses in Texas. This building is built of stone and concrete, with concrete floors, and is practically fireproof. It has a capacity of 12,000 bales of uncompressed cotton.

There are also two large cottonseed-oil mills here, and a modern flour mill of 200 barrels per day capacity.

But one of the most interesting industries is the Waxahachie Cotton Mills. This mill was built by the citizens of Waxahachie in 1900. I was told that it has been a money-maker during all the intervening years, having paid in that time over \$50,000 in dividends. The motive power of this plant is a modern Corliss engine. Starting with a limited number of spindles and looms, it now has in operation 10,000 spindles and 300 looms at work turning out toweling, ducks, sheetings and drills of a very fine quality. Including recent additions, this mill now represents an investment of a little over \$500,000, employing 350 operatives, with an annual payroll of \$150,000 and annual products valued at \$700,000. It consumes annually 7000 bales of Texas cotton, which never entered a compress, and is therefore capable of being converted into the highest grade of fabrics.

Here is an object-lesson for the man who says cotton mills cannot be made to pay in Texas. But there is a reason. Perhaps of all industries, the cotton mill requires the very highest class of managers. This is exactly what the Waxahachie mill has in the person of W. Howorth, its superintendent. Mr. Howorth, it may be said, was cradled in a cotton mill. His father was a cotton-mill superintendent in a great cotton mill in England for many years, where young Howorth obtained his training. But besides this he is now supported by one of the shrewdest

business managers in the person of E. A. Dubose, secretary and general manager, who directs the business affairs of the company. Under the skillful management of Mr. Dubose the business has not only been kept running continuously, but has accumulated a surplus of nearly \$100,000, together with \$18,000 of undivided profits. This is in addition to the \$50,000 paid in dividends. These facts, in the face of the oft-repeated assertion that cotton mills cannot be made to pay in Texas, are hard nuts for "doubting Thomases" to crack, and all such as contemplate engaging in the business would do well to consult the managers of this fine plant before heeding the advice of the "pull-backs." Indeed, it is very clear from the above showing that wherever failure has followed the attempt to operate a cotton mill in Texas it has been for the lack of proper management, and not because the business is a failure here. We need cotton mills in Texas, as well as elsewhere in the South, and there is not the slightest reason why we may not have them unless it be that we simply will not. The country contains plenty of skilled managers if we will only look around for them, and when it is shown that others have succeeded in the business it is a poor recommendation to our business capacity to admit that we cannot do so. Let Texas towns take up this matter and show that they can do what others have done.

Waxahachie also has a fine water and sewer system, costing \$104,000, and belonging to the city. During the recent partial drouth in Texas this city never suffered at any time for water, while the quality is equal to the best.

One of the attractions of Waxahachie is her beautiful courthouse. This is a three-story structure, built of Texas stone, embellished with Texas red granite, and is among the finest in the State, and cost \$175,000.

Other handsome buildings of the city are the fine school buildings, 10 handsome churches, many beautiful dwellings and business buildings.

All streets in the business section are paved, and there are many miles of concrete sidewalks, covering practically all the best sections of residence part of the city.

The railroad facilities of Waxahachie are good. Three trunk lines pass through here, namely, Houston & Texas Central, Missouri, Kansas & Texas and the Trinity & Brazos Valley, thus giving service in six different directions and affording connections with Fort Worth, Dallas and all points north and east; with Waco, Austin, Houston, Galveston, New Orleans and all points south and east.

Other utilities of the city are a \$75,000 electric-light plant; a street-car line; a 50-ton ice plant, and a number of smaller enterprises, all of which give employment to between 500 and 600 men and swell the annual income of the "bucket brigade" to at least \$250,000.

Like other portions of Central Texas, this year's crops were comparatively short. To meet this condition the citizens of the road district surrounding Waxahachie voted \$250,000 road bonds during the summer just past, and have been expending that sum on the improvement of the public roads leading into the city. This has proved to be a wise move, and for two reasons: First, it has afforded means of employment of the farmers of the locality at fair wages, thus providing them a means of support while their crops are short. Second, it has enabled the district to provide a better system of public roads at a lower cost than would have been possible if crops had been good, for then the farmers would have been obliged to occupy their time in taking care of those

crops and the road commissioners would have found it a difficult matter to obtain sufficient labor to do the work. Thus both the county at large as well as the individual farmer have been benefited, the people at large given an object-lesson on the value of good roads, all of which will doubtless result in a greater impetus to good-roads building in this portion of the State.

In these letters I have described several other points in Texas where valuable mineral waters are found, and I desire now to call the attention of the readers of the MANUFACTURERS' RECORD to the mineral wells of this city. A few years ago Waxahachie, being desirous of increasing the supply of water to provide for increasing population of the city, sunk a well inside the corporate limits, but it was found to be so strongly impregnated with minerals as to render it unsuitable for domestic uses, and was therefore abandoned. More from curiosity perhaps than otherwise, people began using it, and found relief from many ailments. This soon became known throughout this and adjoining counties, and today it has become as much of a necessity here as standard remedies of the drug stores. Later on a quantity of this water was sent to B. L. Glascock, an expert analytical chemist of Washington city, who reported the result of his analysis, from which it was shown to contain a large per cent. of calcium, magnesium, sodium, bicarbonates, sulphates, chlorine and other valuable minerals, and was pronounced by local physicians to be equal to any mineral waters found in the State. This water comes from the well at a temperature of 102 degrees. Parties have taken up the matter and now have fine baths and all the accessories of a health resort. It has proved a valuable attraction of the city, and brings many hundred people here for the benefits to be derived from the use of the water.

Another attraction of Waxahachie, and in which her citizens take the greatest pride, is the Trinity University. This is the property of the Cumberland Presbyterian Church, and was built soon after the close of the Civil War. Prior to that event this denomination had three small colleges at different points in the State, but the devastating influence of the war had been the means of closing all of them. At a meeting of the Texas Synod in 1866 it was resolved to make an effort to build a centrally-located school of a high order, and after canvassing the question Tehuacana Hill, in Limestone county, was selected as a suitable location. Here the first university of that denomination was established and maintained for several years. Having poor railroad facilities, it was found rather an uphill business to build up a great university there, and in September, 1901, the Synod decided to relocate the institution at Waxahachie. This city gave the sum of \$80,000 for the location of the university in their city. The site selected for this institution of learning is on a hill one mile north of the courthouse, and 80 feet above the base of that building, which places it 500 feet above sea level. On this spot was erected one of the most sightly structures in the State. The building is a massive building, of English Gothic architecture four stories high, 117x133 feet, with a Gothic tower rising to the height of 84 feet. From this tower may be seen the wide stretching plains for many miles in every direction, a view which must be seen to be appreciated. The walls are of gray pressed brick, with terra-cotta and stone trimmings, and taking the contour of the building as you approach it from the main front it presents a most pleasing and altogether attractive appearance.

Two dormitories, one for young men

and one for young women, constitute parts of the property. A 10-acre campus is another feature of the property. Street cars run from the center of the city to the main entrance of the campus. During September, 1902, the first term of the university at this place was opened, and it has prospered and continued to grow from that good day to this.

The equipment of Trinity University is along the same lines of the better class of universities of the United States. The various laboratories are each provided with apparatus to facilitate instructions in each department. The courses here taught are such as may be had in the leading universities, and include, besides the sciences, languages, music, art, oratory and commerce. Graduates from the latter department from this school are probably better equipped for the various duties of commercial pursuits than those from the commercial schools of the country, and find no difficulty in obtaining places with the better class of business institutions.

Another attraction to Waxahachie is the Summer Chautauqua, which was inaugurated by the enterprising citizens of the city some years ago, and has been maintained at considerable expense ever since. A large auditorium was built in the center of a large and beautiful park containing several acres, and in which cottages for the comfort and accommodation of guests and visitors were erected. Additional grounds are provided for the erection of tents and several thousand people congregate here every July and spend from 10 days to two weeks for recreation, instruction and pleasure.

W.M. C. CLOYD.

ENTERPRISES AT BELTON.

Its Attractions for Homeseekers and Investors.

[Special Cor. Manufacturers' Record.]

Belton, Tex., November 29.

A large part of the 7000 people who make the population of Belton are the direct descendants of heroes of the strenuous days of Texas, even before it was a republic. I am indebted to Editor Davis K. Doyle of the Bell County *Democrat* for a copy of his excellent paper of date of June 4 last, in which is printed a prize essay, from the pen of Miss Mabel Pendleton, recounting much of the Bell county early history, dating back as early as 1835. No account is given, however, of any organized effort to carry on county affairs until October 8, 1850, at which time the first Commissioners' Court is said to have convened. At that meeting an order was made calling for bids for the erection of the first courthouse, which was to be "18x30 feet, weatherboarded on the outside, with shaved boards, posts and studding of cedar, sills and plates of oak." Not until 1860 was Belton incorporated, at which time the population of the entire county was only 4799. From that date to the present the growth has been continuous and rapid. In 1870 it numbered 9774; in 1880, 20,518; in 1890, 33,297, while today it contains more than 50,000. Property values have kept pace with the growth of population, for in 1871 taxable values were \$2,590,214; in 1889 it was \$10,802,770, and today it is \$27,739,710.

In place of the little wooden courthouse, erected here 50 years ago at a probable cost of \$175, there stands on the square a magnificent structure costing \$110,000. This was built in 1885, only 35 years after the little wooden courthouse was built. Other evidences of progress fully in keeping with the above are on every hand. Blocks of handsome business houses, containing immense stocks of goods; hundreds of handsome and costly dwellings; beautiful churches, and many small manufacturing enterprises, among which is a

large cotton mill, attest the spirit of enterprise of the citizenship of the city.

One object of these letters is to show to the world that Texas cities and communities are fully abreast with other portions of the country in everything calculated to make a desirable place for the homeseeker, the business man or manufacturer, because at this day people who seek new locations for either purpose require every advantage which may tend to provide those conditions calculated to give the best possible opportunities not only for business purposes, but also for educational and social advancement. Belton undoubtedly possesses all these conditions in a large measure, perhaps, as any town or city of its size in any part of this country. With one of the finest agricultural sections to be found anywhere; with a climate equalled by few and surpassed by no other place; with an adequate supply of pure water; with a moral, law-abiding and intellectual citizenship of a high order; with natural resources in the greatest abundance and sufficient local wealth and men of sufficient enterprise to offer encouragement to the man desiring to undertake the development of her natural resources, there is every opportunity open to men of means, enterprise and brains to locate here and join hands with these people in building a city of commercial importance.

Few towns in Texas are better provided with educational institutions than Belton. Besides a fine system of public schools, she has the Baylor Female College, organized and chartered in 1845 at the old town of Independence, in Washington county, but some 23 years later moved to Belton, the entire properties representing an investment of over \$250,000.

Of the business institutions of Belton may be mentioned three strong banks; three newspapers, one daily, one semi-weekly and one weekly; two compresses, one built in 1884 and the other built during the present year; the new one is made as nearly fireproof as possible, and will have a capacity of 1500 bales in 10 hours. Other enterprises are a \$150,000 cotton mill (now idle for the want of a practical and experienced manager); this mill is equipped with something over 7000 spindles, on which are made a fine quality of yarn for knitting underwear, etc.

Belton has over six miles of graveled streets and many miles of concrete sidewalks. A fine roller flour mill is another important industry here. The water supply comes from Leon and Nolan creeks and from a flowing artesian well 1050 feet deep, and is ample for every purpose of a city four times the present population. A modern foundry and machine shop, a three-story brick hotel, electric-light system, ice factory, two steam laundries, a natatorium, carriage factory, broom factory and other smaller industries affording employment for many people are all prospering here. Besides, a sewerage system is now being put in. A small creamery is another useful industry of Belton. This is a fine field for a large commercial dairy, and would find a hearty co-operation from the people of the town and surrounding country.

Besides the above there are other opportunities for the investment of capital in various lines, notable among which are very extensive deposits of fire and tiling clays of a very superior quality. There are also deposits of a superior building stone just outside the city limits. This is a peculiar stone. It is very soft when first quarried, and can be worked just like wood—that is, sawed, planed or carved, but with exposure to the air becomes extremely hard. It is one of the most valuable building stones on account of the ease with which it may be worked, and

is used very extensively for the best class of both public and private buildings in this part of the State. Local capital would join with men of means and experience to erect a large plant to quarry and market this stone on an extensive scale.

Belton has a live Commercial Club, of which Dr. P. S. Turner is president and Davis K. Doyle is secretary, either of whom will give detailed information about their town and surroundings.

W.M. C. CLOYD.

SOUTHERN CITY WANTS.

Means of Making Known Their Many Opportunities.

The cotton crop of 1909, now estimated at a billion dollars in value, marks another epoch in the South's history, and will crystallize the interest of the entire world.

Any section having the exclusive ability to produce such a valuation in one year on one staple article and to equal the North in the amount manufactured cannot fail to be better appreciated in the future than it has been in the past. Add to this all the other items of Southern production, and we have a sum so vast as to make every Southerner's heart tingle with pride, particularly when the difficulties of the past 44 years are reviewed.

The first step in this progressive march was taken when the farmers realized that "40 acres to a mule" was an absurdity; that the "one-money-crop" policy was disastrous; that varied production could alone lift him from the slough of despond—all of which was persistently urged by the MANUFACTURERS' RECORD for years.

The South is not as progressive today as its circumstances warrant, but it is far from being the slothful region critics charge. Wealth, made out of its own ground, is greater than was the whole country's in 1860, is a statement of fact that refutes all calumnies. Each day brings new evidences of local thrift, but its very advancement, its emphasized importance and its fast developing capabilities entail new duties, new demands on its mental and physical abilities.

Publicity is the South's cue; it is the key that will unlock the vaults of the world's finance and will pour forth a stream of gold into enterprise, and into investment, where the best security and the fairest rate of interest can be had; it is the moving influence that induces immigration and change of industrial location.

A brief accurate portrayal of facts; a clear, honest statement, free from any word of deception; all widely circulated in every clime, will divert that golden stream Southward.

Already transportation is inadequate to handle the tonnage—tonnage that will be multiplied many times when the host of new settlers ship the product of their labors; when mineral output is forced to measure up to requirements at home and abroad; when the demands on our factories reach the limit of their human and mechanical capacity; when all other Southern resources are made to contribute relatively to the world's needs—then must come a comprehensive expansion of transportation facilities. Twenty millions of bales will be necessary in 10 years to supply increasing usage of cotton. To do this unoccupied lands must be peopled, for the present labor cannot pick more than 14,000,000 bales. More foodstuffs of all kinds must be raised, even if we do not export a dollar's worth—such is the increase of population and the cost of living. To so people our areas the example of Texas should be emulated by all other Southern States. Texas is fast filling up with a highly progressive class of agriculturists, secured by personal appeal and widespread

publicity. Every Texan railroad sends a corps of solicitors to every point of vantage. They unite with the landowners and spend large sums of money in making known their advantages to every prospective immigrant, with a success so great as to justify the claim that Texas will soon equal a principality.

Southern cities require even more advanced methods to secure industries, population and capital than do the country districts. They more fully recognize the efficacy of publicity, for without it any one of them is but a laggard in the great race for preference. All are keen rivals of each other, but the most successful are those who go after the investor, armed with literature and convincing argument. Once an investigation follows, success is generally assured, for the railroads have changed every condition and made the South the central point of industrial development. Raw material, fuel, climate and cheap distribution have conjunctively put the finishing touches to opportunity. Organization alone can successfully work out a program of progress, because combined influence, business ability, statistical information, wise management and a large income are all essentials.

A field secretary, fully equipped, must be in evidence at the industrial centers, prepared to explain every fact, to study every want and to personally advance the cause he serves.

The trade journals should have their columns filled with attractive advertisements exhibiting regular balance-sheets of statistical information. An illustrative lesson is shown in a small Southern town of 2500 inhabitants, which organized its progressive spirits, raised funds and sent out an automobile to distant points bearing the story of its present opportunities and its future greatness.

Its missionary preached from the text of advancement, as applicable to his town, and the very audacity of his enterprise produced satisfactory results. Experience has demonstrated the wisdom of its conception.

No student of the new regime of the South will apply an hour's time to a place that has no Board of Trade, for such lack of public spirit and ambition robs him of all confidence.

Hide your civic pride, and there will be civic darkness. Remain in obscurity, and lose the chance of recognition.

Publish widely and wisely the solidity of your foundation, the sum of your opportunities, your abiding faith; extend a welcome to all who would investigate, and you force recognition.

Every city requires its traveling representative as much so as every factory or merchant, and it cannot reap results without the application of modern methods in modern times without them.

WALTER SHARP.

Norfolk.

Faith in Jacksonville.

Indicating his faith in Jacksonville, Fla., Herman R. Finn, already the owner of 225 dwellings and business houses in that city, will, according to the Florida Times-Union, build in the near future four apartment-houses two stories high, and 10 cottages.

Canning Sweet Potatoes.

A sweet potato canning plant at Savannah, Ga., a new industry there, handling about 400 bushels of potatoes a day, is now turning out 800 cans of potatoes daily and is obliged to operate at night.

"Tupelo and Lee County, Mississippi," is the title of an attractive booklet issued by the Commercial Club, telling of the growth of the city and of the reasons for further growth.

ALACRITY OF SOUTHERN COMMERCIAL BODIES FOR NEW INDUSTRIES

WHAT IS YOUR TOWN DOING?

The MANUFACTURERS' RECORD will be glad to receive from responsible correspondents in every town in the South brief items of news about business conditions and the opportunities for industrial enterprises. This information is desired for publication without cost of any kind to the sender, and regardless of whether the writer of the letter is a subscriber or not. The MANUFACTURERS' RECORD accepts no paid town write-ups. It seeks information of this kind from commercial and industrial organizations and from municipal authorities in every town and city of the South.

TEXAS CITY ADVANTAGES.

Business Men's League,
Texas City, Tex., November 19.
Editor Manufacturers' Record:

There is no place in the country that is attracting more attention than Texas City, and none that gives greater promise of becoming a shipping point and manufacturing center of importance. Since the undertaking of the extensive improvements now under way one of the most complete and up-to-date oil refineries in the State of Texas has been established at a cost of \$500,000, and though barely completed, is already being operated at a great profit.

Texas City offers unparalleled advantages for a large furniture factory. The best quality of mahogany timber in inexhaustible quantities can be delivered from Central America and Mexico to Texas City at a very low net cost and here manufactured into the finest of furniture. Immediate access to these vast fields, together with a minimum rate of transportation, would enable this valuable wood to be procured at an exceedingly low figure. Other hardwoods from this territory, as well as from convenient points in Texas, can be had at the lowest possible cost. Extensive steamship service to Mexico, Central America and the West Indies, as well as to other points of importance, both foreign and domestic, would enable such an industry to supply furniture more cheaply in competition with Northern manufacturers at a greater profit than from any other locality. Being also located on six of the greatest trunk line railroads in the country, with the wealth and expanse of Texas to the north, east and west, and with immediate and convenient access to this vast territory, as well as to the principal markets of nations, furniture men cannot see how an enterprise of this kind could be otherwise than successful. The industry established here now and properly managed would prove a valuable asset to the investor and a source of immediate handsome profits. Those who are interested will do well to address the Business Men's League of the port of Texas City at Texas City, Tex.

H. B. MOORE,
Secretary.

ELECTRICITY FOR COKE OVENS.

Board of Trade,
Big Stone Gap, Va., November 18.
Editor Manufacturers' Record:

I am herewith sending you a copy of the Big Stone Gap Post with a marked article * * *. I think it is well worthy of your notice, as the power development will be exceedingly interesting.

D. H. COOLIDGE,
Secretary.

Among the statements in the article bearing upon cheap fuel are:

"The key to the situation is coke-oven gas, a hitherto waste product of no value. Those who have been through the coke fields by night will recall the batteries of the torching ovens and can full well understand the immense amount of gas that escapes. A short while ago a progressive coke operator in Wise county connected by a flue 30 ovens and conducted this gas to his boilers, four in number, of 300 horse-power each, and from this gas as fuel he is supplying power to run two

300-kilowatt dynamos, 1100 amperes, and a large compressor as well, at a cost which is slightly less than three mills per kilowatt hour. This is on a small development of 1000 horse-power. So satisfactory is this installation that he is now laying copper wire to the next plant, which he will supply with electric current. "Big Stone Gap is in Wise county, and is the actual hub of the coal fields. There is within a comparative short radius of the town 3800 coke ovens; therefore, the promoters of this enterprise are justified in seeing an immense development in the future. Big Stone Gap has three railroads which allows shipments to the South and West. To those who wish to know more about this new fuel and its wonderfully cheap-priced horse-power can obtain more complete data by writing the secretary of the Board of Trade of Big Stone Gap."

ADDITIONS TO ASHEVILLE.

Board of Trade,
Asheville, N. C., November 19.
Editor Manufacturers' Record:

Dr. E. W. Grove of St. Louis, who has had a summer home in Asheville for a number of years, and who recently began the development of a residential park in the northeastern section of the city, has added very largely to his real estate holdings during the past few months. Dr. Grove now owns about 500 acres of land, including Sunset Mountain, and is preparing plans for large improvements. These will include a counter-weight railway to the top of the mountain, and it is said that he will erect a large modern fireproof hotel on one of the numerous available mountain tops on the estate. Modern driveways and automobile roads will be constructed, with connections with the city streets, and if the intimated plans are carried out many hundreds of thousands of dollars will be spent in developing and beautifying this property in the near future. Active operations will be begun with the opening of next spring.

Asheville seems in a fair way of securing another railway. The Asheville & East Tennessee Railway, which built an electric line from this city to Weaverville during the past summer, a distance of eight miles, proposed to continue the line to a point on the Clinchfield, Carolina & Ohio Railway in Yancey county, North Carolina, a distance of about 50 miles. Canvasses are now being inaugurated for the voting of bonds in the counties of Buncombe, Madison and Yancey in aid of this project. Buncombe will be asked to give \$325,000, Madison \$50,000 and Yancey \$100,000. It is believed that these amounts will be voted, as the railway company proposes to give the counties as many dollars' worth of its 6 per cent. first mortgage bonds as they vote by way of aid.

The road will be operated by electricity developed from water-power on the French Broad River. It is claimed that there is a fall of 750 feet in this river between Asheville and Newport, Tenn., and that it is possible to develop from 125,000 to 150,000 horse-power by the construction of proper dams in a flow of the river covering about 60 miles.

The rights of way have all been secured by purchase, agreement and condemnation for the proposed \$70,000 concrete street

railway and road and walkway bridge connecting this city with West Asheville, and the contract for construction is expected to be let by County Commissioners at an early date.

The plant of the National Casket Co. on the French Broad River near Asheville is rapidly approaching completion. It will employ from 100 to 200 men.

JOHN P. KERR,
Secretary.

GREENVILLE REACHES OUT.

Board of Trade,
Greenville, S. C., November 19.
Editor Manufacturers' Record:

The recently-announced purchase of the Anderson Traction Co.'s properties, including electric line from Anderson to Belton, by officials of the Southern Power Co. and local capitalists, promises gigantic development for the Piedmont section of South Carolina. It appears to be the plan of these gentlemen to extend the electric line from Belton to Greenville, and possibly to Spartanburg. The distance from Belton to Greenville is 25 miles, and from Greenville to Spartanburg 30 miles. The territory likely to be traversed is thickly settled and prosperous.

Building activities in Greenville are unprecedented. The Masonic Temple, six stories, has been begun, and work is being pushed night and day. Four other business buildings are nearing completion, and the cry is still for more.

Active steps are being taken to pave the main thoroughfares. This, it is expected, will be done almost at once.

Real estate is more than active. Prices are being obtained that even two years ago would have not been dreamed of. New streets have been opened, miles of sidewalks laid, hundreds of dwellings have been erected, and there is still demand for more.

A new cigar company has been organized. A candy factory has been established. Numberless smaller events have transpired. In the meantime Greenville is still maintaining its reputation for "doing things" with "home-made" money.

The city needs and invites new industries, but more than these she desires small farmers to settle in the rich country nearby. The soil is capable of producing all crops, vegetables and truck. One acre this year yielded 120 bushels of corn. An acre adjoining gave nearly two bales of cotton.

Greenville needs a creamery, a cheese factory and a factory to make use of some of the lumber going by her doors into North Carolina for furniture that is shipped back by her doors as finished product.

The cry is now "40,000 in 1910." We are just beginning to begin.

JOHN WOOD,
Secretary.

VICTORIA BRANCHING OUT.

Progressive League,
Victoria, Tex., November 20.
Editor Manufacturers' Record:

The Consolidated Alfalfa Milling Co. is considering the installation of a chain of alfalfa mills in Texas and other alfalfa-growing districts in the South, and purposes to invest \$500,000 in such projects. It has made a proposition to Victoria to take stock in one of the mills to be located at this place, and the matter is receiving favorable attention. This milling company claims that it can take the alfalfa, green from the fields, either cut during a rain or in the sunshine, or use the cured hay, and make meal that will stand prolonged storing or shipment. The whole coast country of Texas is specially adapted to the raising of alfalfa, but on

account of the frequency of rains during the harvesting period many of our farmers go into the business only in a very limited way. Should the Consolidated Company perform what it promises, it means much to the South.

The question of another railroad for Victoria has been under consideration by our people for some time, and three of the large systems are now considering getting into this field. At present this section is only served by the Southern Pacific through its various branches and consolidated lines, but other important systems are heading this way. The Frisco is building out from Bloomington, a station on the St. Louis, Brownsville & Mexico road 14 miles south of Victoria to the new town, Port O'Connor, on Matagorda Bay, about 25 miles from Port Lavaca. Strong Northern financial interests are deeply invested in this project, and are neither sparing money nor time to make it a success. In this Frisco branch road Victoria hopes to have a new outlet to the Gulf at an early day. While we have a population of about 9000 people, we have 14 millionaires residing in the county, and several of them are heavily interested in large ranch proposition which would be greatly increased in value by the construction of this Bloomington branch to Victoria, and thence to Smithville and San Antonio. It is almost certain, if the railroads which are already heading toward the Gulf for terminals do not take up the matter of extending the branch, that local interests will personally take the matter in hand and build it. The distance from here to San Antonio is 120 miles and to Smithville is about 92 miles. At Smithville we would have connection with the Missouri, Kansas & Texas, but in getting there the road would intersect the San Antonio & Aransas Pass and the Southern Pacific, but the route could be surveyed so as to throw out a branch at little expense to connect with the Santa Fe. We are going to get that other road, and with free navigation to the Gulf when the Government completes dredging the Guadalupe River, Victoria will be one of the best-located cities in South Texas in the way of freight competition.

Our financial interests are always ready and willing to take up any legitimate proposition looking toward the location of factory enterprises, but they turn the deaf ear to the bonus game.

E. G. PARRISH, Secretary.

MEANS BUSINESS.

Chamber of Commerce,
Montezuma, Ga., November 16.
Editor Manufacturers' Record:

We received your Daily Bulletin with the article on "Grievance of the Southern Commercial Congress." Will only say we appreciate fully the value of your paper and the great good it has done and is still doing. Pay no serious attention to them. We mean business when we say we want factories. A. E. BEDINGFIELD,
Secretary and Treasurer.

FACTORIES FOR GUTHRIE.

Chamber of Commerce,
Guthrie, Okla., November 17.
Editor Manufacturers' Record:

Our prospective cotton mill for the manufacture of cloth has not been definitely decided upon, but we expect to promote a mill of this kind in the very near future. We invite outside capitalist that would be interested in a cotton-cloth mill to engage with us in this contemplated enterprise.

The Guthrie School Desk & Furniture Factory, recently secured by our Chamber of Commerce with a capital stock of

\$100,000. is now in operation. It has a capacity of 200 desks per day, and will employ 100 persons.

The McCarty Bros. of St. Louis, Mo., was induced by the Chamber of Commerce to locate in Guthrie with their \$10,000 bedding and mattress factory, and are now in operation. We also have several other factories knocking at our door for admittance, and we expect to land all of them that are feasible in the near future.

W. A. RAYSON,
Secretary.

TAMPA'S CIGAR INDUSTRY.
Board of Trade,
Editor Manufacturers' Record:

Tampa, Fla., November 27.

The board of governors of the Spanish Casino, Ybor City, Tampa, has authorized the issuance of \$125,000 bonds to build two Spanish casinos, one in Ybor City to cost \$60,000 and one in West Tampa to cost \$75,000.

The Sanchez & Haya Real Estate Co. of Tampa has just finished an absolute fireproof and waterproof building, and is contemplating the erection of 28 similar houses opposite the new Regenburg factory, in this city, to be completed within three months. These also are of concrete molded construction.

We are now making here nearly 1,500,000 cigars each day. The output of Tampa for this year will be over 300,000,000.

W. B. POWELL,
Secretary.

Detailed information about towns seeking manufacturing enterprises and offering specific advantages for development and business opportunities can be found under the head of "Classified Opportunities" on pages 94 and 95, and under "Southern Towns Wanting Factories" on pages 140, 141, 142, 143 and 144.

SOUTHWEST OIL FIELDS.

Changes in Administration of the Mellon Interests.

[Special Cor. Manufacturers' Record.]
Beaumont, Tex., November 26.

On or about January 1, 1910, Mr. C. H. Markham, vice-president of the Gulf Pipe Line Co. since its organization three years ago and vice-president of the J. M. Guffey Petroleum Co., with headquarters at Beaumont, will go to Pittsburg, Pa., to become first vice-president of both companies and vice-president of the Gulf Refining Co., operating the largest refinery in the Southwest. Mr. F. A. Leovy, formerly Mr. Markham's assistant at Beaumont, but for the past three years in charge of the operations of the Gulf Pipe Line Co. in Oklahoma, and occupying the office of vice-president of the Gulf Pipe Line Co. of Oklahoma since its incorporation a few months ago, will succeed Mr. Markham at Beaumont. C. C. Barry, formerly auditor of the Houston & Texas Central and Houston East & West Texas railroads, both Harriman lines, takes Mr. Leovy's place in Oklahoma, with headquarters at Tulsa.

The Gulf Pipe Line Co., J. M. Guffey Petroleum Co. and Gulf Refining Co. embrace the important oil interests of the Mellons of Pittsburg—Messrs. A. W., R. B. and W. L.—constituting, respectively, the pipe line, producing and refining branches of the extensive oil business built up and controlled by the Mellons. Another corporation, the Gypsy Oil Co., represents the producing end of their interests in the Oklahoma oil fields, holding producing property of greater developed capacity than any other concern in the State. The J. M. Guffey Petroleum Co. confines its operations to Texas.

Mr. Markham has been with the Mellon interests for five years and three months. In that period the Texas and Louisiana

oil fields reached the zenith of their productiveness. In 1906 the opening of the Glenn pool, south of Tulsa, Okla., offered an abundant supply of high-grade crude oil suitable for refining, and the Mellon interests organized the Gulf Pipe Line Co. and under Mr. Markham's direction in the year following laid an eight-inch trunk pipe line from this point (the Glenn pool) to the large refinery of the Gulf Refining Co. at Port Arthur, a distance of 454 miles. This work was accomplished, and oil was being pumped through the line in eight months from the day that construction started—a record achievement. At present over 20,000 barrels a day of Oklahoma crude is being delivered through this line to Port Arthur, where it is manufactured at the Gulf Refinery into various commercial products and shipped by tank car to interior points along the Gulf coast, and by the company's tank steamers to Atlantic coast and foreign ports. This refinery has a capacity of 500,000 barrels a month, and is the largest in the Southwest.

Before taking charge of the Mellons' producing and pipe-line interests in Texas, Louisiana and Oklahoma, Mr. Markham was vice-president and general manager of the Harriman lines on the Pacific coast, with headquarters at San Francisco, to which post he was appointed after having successfully administered the same office in connection with the Harriman lines in Texas. His advancement to a place of greater responsibility and wider influence as the active executive head of the Mellon oil interests is regarded as a fitting recognition of his successful management of the business entrusted to his care during the past five years.

Mr. Leovy has been with the Guffey-Gulf companies nearly six years, and during the past three years has handled the many details of the business in Oklahoma in a manner which has brought him substantial promotion.

FLORIDA EVERGLADES.

Bids Invited by the State for Their Draining.

The State of Florida is now preparing to enlarge its operations now under way in the drainage of the Everglades. Governor A. W. Gilchrist, chairman of the Internal Improvement Fund of Florida, Tallahassee, Fla., is now inviting proposals for constructing the contemplated drainage canals. Referring to this project, W. M. McIntosh, secretary of the Improvement Fund, telegraphs the MANUFACTURERS' RECORD as follows: "Bids for excavating drainage canals will be received up to 12 o'clock noon December 22, and award will be made as soon thereafter as possible. Bidders are only expected to state price per cubic yard of excavation. Routes of canals to be hereafter determined, but all will be in Everglades district, where conditions are practically the same in every direction. Bidders can examine work already done so as to arrive at conditions to be encountered and also report of J. O. Wright, United States engineer, Washington, D. C. P. F. Jenkins, Miami, Fla., is engineer in charge. Length of canals, 100 to 300 miles; cost depending upon bids. No special form is prescribed for bids."

It is announced that the Newport News Shipbuilding & Drydock Co. will receive the contract for the building of a large freight and passenger steamer for the Old Dominion Steamship Co., the twelfth contract received by the plant at Newport News this year.

The topic for discussion at this week's meeting of the Philadelphia Foundrymen's Association, Mr. Howard Evans, secretary, was "The Handling of Freight by Electrical Machinery."

GOOD ROADS

WEEK'S HIGHWAY RECORD.

Progress in Southern Road and Street Improvement.

[Full details of highway undertakings are given in the Construction Department.]

Bonds Voted.

Granbury, Tex.—Hood County Precinct No. 1 voted bonds for \$25,000 to construct roads.

Shreveport, La.—City voted bonds for \$250,000 to pave streets and construct storm sewers.

Bonds to Be Voted.

Danville, Va.—City contemplates issuing bonds for \$100,000 to improve West Main and Worsham streets and build bridge.

De Land, Fla.—Volusia county proposes to vote on issuance of bonds for \$250,000 to construct roads.

Jonesboro, N. C.—Jonesboro township of Lee county votes December 28 on issuing bonds for \$10,000 to improve roads.

Richmond, Tex.—Fort Ben County Road District No. 1 votes January 1 on issuing bonds for \$150,000 to improve roads.

Sherman, Tex.—Grayson county votes December 8 on issuing bonds for \$250,000 to construct roads near Denison.

Contracts Awarded.

Asheville, N. C.—Kenilworth Land Co. awarded contract for constructing one-and-one-half-mile boulevard and bridge; cost \$10,000.

Chandler, Okla.—Lincoln County commissioners awarded contract at \$135,000 to T. M. Steichner for construction of rock road 31 miles long, 10 to 14 feet wide; surface to be oiled.

Gulfport, Miss.—Gulfport Traction Co. awarded contract for paving streets.

Contracts to Be Awarded.

Alexandria, Va.—City appropriated \$3000 to construct 24-foot roadway on North Washington street.

Ardmore, Okla.—City will pave 10 miles of streets, probably inviting bids in January.

Birmingham, Ala.—City opens bids December 1 for grading, curbing, guttering, sidewalk, macadam paving, etc.

Bristol, Tenn.—City is arranging to expend \$25,000 for street improvements.

Hendersonville, N. C.—City will soon arrange to construct cement sidewalks, having sold recent bond issue of \$20,000.

Hickory, N. C.—City will arrange to construct 10,000 square yards of granolithic sidewalk, wood block and other pavements and macadam road; recently voted bonds for \$60,000.

Huntsville, Ala.—City opens bids December 28 for 20,000 yards of pavement and 10,000 feet of curb and gutter.

Houston, Tex.—Magnolia Park Land Co. opens bids December 4 for constructing 6000 linear feet of cement sidewalk.

Houston, Tex.—City opens bids December 13 for vitrified brick paving on Main, San Jacinto, Travis and Washington streets.

Mansfield, La.—De Soto county will construct road; \$70,000 available.

Pulaski, Va.—State Highway Commissioner, Richmond, opens bids December 11 for constructing macadam road 2.6 miles long.

Richmond, Va.—City opened bids November 29 for granolithic curbs and gutters, brick paving on sidewalks, etc.

Upper Marlboro, Md.—Prince George's county opens bids December 7 for grading and macadamizing one mile of road.

Automobiles in Business.

Indicative of the value of good roads to any community and of the increasing use of automobiles wherever good roads are established is a letter to the MANUFACTURERS' RECORD from Bonner & Barnwell, manufacturers of leather belting, New York, who, writing under date of November 22, say:

"Our Southern representatives who operate from our branch house in Charlotte, N. C., have experienced such difficulty in getting to the numerous mills within a radius of 40 or 50 miles from Charlotte, and as the roads are in such excellent condition, we came to the conclusion that the best method to reach the buyers of our material was by means of an automobile. We have, therefore, just shipped to our Southern branch, for the use of our manager, Mr. Cook, a Franklin automobile, which we think will facilitate his doing business. We think if more business houses followed this procedure it would not be long before the South would be a network of fine macadam roads."

The automobile, though valuable as a pleasure vehicle, will in time come to be used for business purposes and for economy of time to a far greater extent than it is now used merely for pleasure. Wherever in the South or elsewhere good roads are provided the automobile will come into play as an active factor in material up-building.

Sidewalks at Nashville.

Referring to contemplated sidewalk construction at Nashville, that city's chief draftsman, J. C. Evans, writes to the MANUFACTURERS' RECORD as follows:

"We have \$50,000 available (by bond issue) for constructing granitoid sidewalks, property-holders to reimburse city within 90 days, and this money to be used over and over until entire city is sidewalked complete. We have many miles of this work to do in the next few years. City notifies property-owners through press, and if they fail to do so in 30 days city is empowered to proceed as above stated. We are now receiving bids for about 6000 square yards of combines and 2000 square yards of plain sidewalk and 3000 linear feet of concrete curbing, to be opened Tuesday, November 30, at 3 P. M. All work under plans and specifications and inspection of city engineer, Wm. W. Southgate. We charge contractors for permits one cent per square foot of walk, and pay an inspector with this fund, which rate we find about compensates us for inspector's services."

A \$135,000 Road Contract.

Dispatches from Guthrie, Okla., report the awarding of an important contract for adding to the good-roads mileage of Lincoln county. They state that the Lincoln County Commissioners have awarded contract to T. M. Steincher for constructing the proposed road from Stroud westward through Chandler and Davenport to Wellington. The amount of the contract is \$135,000. The road will be 31 miles long, 10 to 14 wide, constructed of rock and afterward oiled. It is to be completed within a year. Mr. Steincher was formerly connected with the Government good-roads department.

The Miller Coal & Coke Co. has been incorporated with a capital stock of \$100,000 to develop coal lands in the vicinity of Junior, W. Va. Its incorporators are J. W. S. Miller of Junior, J. P. K. Miller and Carrie M. Miller of Scottsdale, Pa., and Arthur R. Miller of Connellsville, Pa.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

KANSAS CITY TERMINAL.

Nearly \$6,000,000 to Be Spent for New Union Station and Other Facilities.

The directors of the Kansas City (Mo.) Terminal Co. have decided that the proposed new union station shall be built on a much larger scale than was originally proposed. The ordinance passed by the City Council required that the terminal should cost not less than \$2,800,000, and the directors have decided to spend \$5,700,000, having adopted plans prepared by Jarvis Hunt, architect. H. L. Harmon is president of the company. J. W. Kendrick, vice-president of the Atchison, Topeka & Santa Fe Railway, is chairman of the executive committee, which will have general charge of the construction. The other members thereof are E. W. McKenna, vice-president of the St. Paul lines; J. Krutschmitt of the Harriman lines, Daniel Willard of the Burlington, and B. L. Winchell of the Rock Island. John V. Hanna, chief engineer of the terminal company, and the other engineers representing the different lines interested will constitute a terminal plan committee to have charge of the trackage, buildings and other features of the proposition not covered by the committee on the main building. President Harmon is chairman of each of these committees.

The new station building will have a frontage of 500 feet, with a maximum height of 120 feet. The reception-room or lobby will be 250 feet long by 100 feet high. Surrounding this large apartment are baggage-rooms, checkrooms, parcel-rooms, telephone and telegraph offices, dining-rooms and lunchrooms, besides various other rooms necessary to the business of a railway terminal. In the center are the ticket offices. Adjoining the reception-room and toward the stairways and elevators leading to the trains is the waiting-room. Special cars are also provided for immigrants, with equally easy facilities for reaching the trains. The track level will be 20 feet lower than the floor of the waiting room.

It has been estimated that the total expenditures necessary in connection with providing the new terminal will eventually reach \$20,000,000 or \$30,000,000, but it is probable that four or five years at least will be required to fully complete the work.

NEW RAILROAD PLANS.

A Mississippi and Alabama System Proposed—Extensive Electric Railway for Texas.

The Canton, Vicksburg & Birmingham Railroad Co., according to official information, proposes to build a line about 200 miles long from Vicksburg, Miss., to Birmingham, Ala., via Canton and Macon, Miss. The company has just been authorized by the State, and the name of those interested include gentlemen who are also connected with the proposed Mississippi Western Railroad projected between Meridian and Natchez, Miss. For the now proposed new line two bridges of importance will be required, one over the Big Black River and the other over the Pearl River. Connection will be made at Canton, Miss., with the Illinois Central, at Holly Cross with the Mobile, Jackson & Kansas City Railroad and at Macon with the Mobile & Ohio Railroad. The route is through rolling country for the most part, but some is high and level. It is expected to begin surveying in about 30 days. The incorporators include W. H. Hudson of Hazlehurst, Miss.; W. A. Wall of Me-

ridian, Miss., and William Cornell of Lake, Miss.

The Pascagoula, Meridian, Memphis & Panama Railroad & Steamship Co. has also been organized and authorized and proposed by the same parties as the foregoing. It is intended to build a line 350 miles long from Pascagoula, Miss., on the Gulf, northward to Memphis, Tenn., via Hattiesburg, Lake, Ethel and Taylor, Miss. Connections would be made at Hattiesburg with the New Orleans & Northeastern Railway and the Gulf & Ship Island Railroad; at Lake with the Alabama & Vicksburg, and with the Illinois Central at both Ethel and Taylor. The route is through alternating rolling and level country; there are no bad hills. The incorporators are W. H. Hudson, William Cornell and W. A. Wall, as above. These two roads proposed are part of the extensive scheme outlined in the last issue of the MANUFACTURERS' RECORD and in which it is reported French capital is interested.

The Columbia, Mississippi & West Alabama Railroad Co. is a new incorporation in Mississippi to build a line from Winfield, Ala., southwest toward Columbus, Miss., and thence to Aliceville or Dadey, Ala. The incorporators are C. F. Sherrod of Columbus, Miss.; Robert W. Watson of Harrisburg, Pa.; A. E. Silvertown of St. Louis, Mo., and Dr. J. A. Root of Erie, Pa.

The Avoyelles, Palmetto & Gulf Railway Co. has been chartered to build a line from Opelousas, La., via Moreauville, Plauchville and Palmetto to Natchez, Miss., about 85 miles. The organization was formed at Palmetto, La., and it is said the line will open up a very productive section of that State, besides traversing extensive virgin forests. The capital stock will be \$1,000,000. The officers are E. A. Plauche, president; R. G. Hawkins, vice-president; J. H. Harmonson, secretary; H. E. Estorge, treasurer, and Dudley L. Gilbeau, general attorney. One of those present at the meeting was Wm. A. Wall of Meridian, Miss., who is interested in several proposed railroads in that State, as herein reported, but whether his attendance at the organization of the new road is indicative of a combination does not appear.

The Crandall & Shady Valley Railroad Co. of Johnson county, Tennessee, is chartered with \$10,000 capital to build a line from Crandall along Beaver Dam Creek to the summit of Cross Mountain, also in Johnson county, Tennessee. The incorporators are R. E. Donnelly, H. A. Donnelly, R. E. Butler, D. H. Donnelly and W. T. Smythe.

The Metropolitan Steam & Electric Railway Co., which was chartered last May at Dover, Del., for the purpose of building lines in Texas, proposes to construct, according to a report from San Antonio, Tex., a line running from that city to New Braunfels, Seguin, Lockhart, Gonzales and Austin, Tex., and surveying is to begin within a month. John G. Marion of San Antonio is president of the company, and M. Kaufman, secretary and treasurer, Yorktown, Tex. E. L. Squire of Wilmington, Del., is vice-president. President Marion is quoted as saying that the plan is for an air line from San Antonio to a point near New Braunfels, and from there eastward to Seguin and westward to New Braunfels. The main line will continue north to Lockhart, and finally to Austin, but at some future time it will also run from Austin to Houston. Branches are proposed from Seguin to Gonzales and Sutherland Springs. It is expected that the line will finally be 500 miles long. Furthermore, it is expected that within 10 days announcement will be made of when actual construction will be

gin. Chas. H. Russell is making the final surveys, and will have charge of the work.

The Muskogee, Hartshorne & Southern Railroad Co., with headquarters at Oklahoma City, has been chartered in Oklahoma with \$100,000 capital to build a line 180 miles long from Muskogee, Okla., to Paris, Tex., at an estimated cost of \$6,500,000. The directors are H. R. Blauvelt, J. E. Armstrong, R. F. Goff, all of Oklahoma City; A. D. Dailey and C. R. Day of Edmond, Okla.

The Chickasha Terminal Railway Co. of Chickasha, Okla., has also been chartered with \$10,000 capital to build a terminal at Chickasha at an estimated cost of \$700,000. The directors are Dorset Carter, C. E. Nelson, C. H. Parker, B. M. Hailey, M. McMillan, W. N. Sparger, all of Purcell, Okla., and J. N. Adelotette of Shawnee, Okla.

The Hawkinsville & Western Railroad Co. has applied for charter in Georgia to build a line from 15 to 50 miles long from Hawkinsville westward to Perry or Fort Valley, to Vienna or Unidilla, or to Montezuma, Ga., as may be desired; capital \$100,000; headquarters at Hawkinsville. The incorporators include T. B. Ragan, J. F. Cone, W. N. Parsons, E. J. Henry, Morgan Thompson, N. A. Jelks, J. J. Whitfield, J. H. Taylor, J. B. Mitchell, W. A. Jelks, P. H. Lovejoy, J. J. Harvey and H. E. Coates of Hawkinsville, Ga.

The Irwinton Railway Co. has been chartered in Georgia, but has not yet organized. The proposed line is about three and one-half miles long, from McIntyre to Irwinton, Ga., and it will require two bridges of wood averaging five feet high, one being 100 feet long and the other 200 feet long. The route is through a hilly country, and connection will be made with the Central of Georgia Railroad. J. L. Byington and others are interested.

The Oklahoma, Red River & Texas Railway Co. of Clarksville, Tex., has filed charter to build a line 80 miles long from Blossom to Mineola, Tex.; capital \$80,000. The incorporators are C. P. Moore, Frank Miesch, Joe T. Brown, J. L. Skinner, John T. Upchurch, John Miesch, E. L. Canterbury, W. H. Dickson, Roscoe Johnson and L. O. Trice.

WEST VIRGINIA RAILWAY.

Incorporation of the Virginia End of the Plan—Rumor That Other Roads Are Interested.

The Virginia Western Railway Co. has been chartered in Virginia to build in that State 100 miles of line, which will form part of the road recently incorporated in West Virginia as the West Virginia Railway, and which will extend from Clifton Forge, Va., to Keyser, W. Va., about 186 miles.

It is said that bids for construction are to be immediately invited and contracts awarded. The estimated cost of the road is \$10,000,000. A branch is to be built to Covington, Va.

President J. J. Stoutsburgh is quoted as saying that the road will be built by a New York syndicate which owns large tracts of mineral lands in Southwestern Virginia, West Virginia and Kentucky, and it will be used as an outlet for the products of these properties. It will connect with the Chesapeake & Ohio Railway at both Covington and Clifton Forge, Va., and with the Baltimore & Ohio Railroad and the Western Maryland Railroad at Keyser, W. Va. A report from Richmond, Va., says that President Stoutsburgh declined to discuss the suggestion of any connection of his plans with existing systems, but officials of the Chesapeake & Ohio Railroad denied that it was in any way concerned with the construction of the proposed line. It is intimated that the Baltimore & Ohio may be concerned, but

an officer of that company denied any knowledge of it some time ago.

The principal office in Virginia is to be at Clifton Forge. The maximum capital is \$200,000 and the minimum \$100,000. The other officers of the company are A. V. Huyler, vice-president; V. M. Bovie, secretary, and J. G. Ropes, treasurer, all of New York, the other directors being B. H. Hiner of Franklin, W. Va.; H. H. Byrd of Warm Springs, Va.; J. M. Douglas of Warm Springs, Va., and C. M. Lunsford of Monterey, Va.

New Equipment, Rails, Etc.

The Tampa & Jacksonville Railway, Gainesville, Fla., is in the market for 10 miles of 60-pound rail and from 12 to 15 frogs and switches to replace light rail. Relaying rails with angle bars attached are preferred.

The Central of Georgia Railroad is reported to have purchased \$40 tons of steel rails from the Ensley plant of the Tennessee Coal, Iron & Railroad Co.

The Louisville & Nashville Railroad, according to a dispatch, will build six passenger cars and eight baggage cars at its Louisville (Ky.) shops.

The Pennsylvania Railroad, it is reported, contemplates building some 70-ton freight cars. The largest capacity freight cars now used are of 50 tons capacity, or 100,000 pounds, but the new cars are to have a capacity of 140,000 pounds. They will be used for carrying coal and iron ore.

The Atlantic Coast Line is reported in the market for 300 steel flat cars of 28,000 pounds capacity each, and to be delivered in May next. The company has ordered from the Barney & Smith Car Co. of Dayton, O., 1200 double-felt-lined ventilated 30-ton box cars with steel underframes and a capacity of 40,000 pounds, also for May delivery.

The Union Traction Co. of Sistersville, W. Va., will, it is reported, purchase two or three passenger cars.

The Gulf, Texas & Western Railway, Dallas, Tex., is reported to have ordered two mogul engines from the American Locomotive Co., New York city.

The Nashville, Chattanooga & St. Louis Railway, according to a press report, has ordered two passenger cars from the American Car & Foundry Co.

The West Kentucky Coal Co. has ordered a 10-wheel freight locomotive from the American Locomotive Co.

The Metropolitan Street Railway Co., Kansas City, Mo., is reported contemplating the purchase of 50 street cars.

The Chicago & Alton Railway is in the market for 10 Mikado locomotives, besides three Mallet compound locomotives, as previously reported.

The Chattanooga Railways Co. of Chattanooga, Tenn., has ordered five pay-as-you-enter cars from the J. G. Brill Company, Philadelphia.

The Lexington & Interurban Railways of Lexington, Ky., it is reported, contemplates buying three single-truck cars and two 50-foot double-truck interurban cars.

The Oklahoma Railway Co., Oklahoma City, is reported in the market for 10 double-truck street cars and six interurban cars.

The McAlpin Coal Co. of Charleston, W. Va., is reported to have ordered 100 steel mine cars from the Pressed Steel Car Co. of Pittsburgh.

The San Antonio & Aransas Pass Railway is reported to have ordered 15 steel tank cars from the American Car & Foundry Co. of St. Louis.

The Baltimore & Ohio Railroad contemplates purchasing 10 passenger cars.

J. M. Kerns, general manager of the Beaver Valley & Northwestern Railroad Co., Beaver City, Okla., writes that the company is ready to receive bids on equip-

ment, rails, ties, grading and machinery to begin active construction January 1.

Bartlett-Florence Extension.

The Bartlett-Florence Railway Co., according to an official letter, will build an extension 28 miles east of Bartlett, Tex., as recently reported, this to reach Rockdale by an air-line route. There will be five small wooden trestles, and the line runs through a flat farming country. Connections will be made with the International & Great Northern Railroad and the San Antonio & Aransas Pass Railroad. The engineer is Geo. D. Fairtrace, assistant chief engineer of the road. The contract is let to the Bowers Construction Co. of Bartlett, Tex.

The company has completed grading on the western division to the twentieth mile-post, and will begin train service on December 5 to the first station, Schwertner, Tex., about five and one-half miles from Bartlett. There are three miles of grading still to be done.

The officers of the company are G. W. Hubbard, president; W. J. McDaniel, vice-president and general manager; John C. Collins, secretary and auditor; Chas. C. Bailey, treasurer, all of Bartlett, Tex., and H. W. Peck, general attorney, Dallas, Tex.

When the extension is completed the line will be 51 miles long.

On the Maryland Electric.

The Maryland Electric Railway Co. is purchasing through Alexander Brown & Sons of Baltimore three interurban cars, which will be leased to the railroad. The car bodies will be made with steel underframing by the Jewett Car Co. of Newark, O. They are to be 57 feet long, and will be mounted on double trucks built by the American Locomotive Co., Schenectady, N. Y. The electrical equipment will be furnished by the Westinghouse Electric & Manufacturing Co., Pittsburg, and will correspond with the other electrical equipment of the road, it being alternating-current single-phase 6600-volt apparatus.

The company has nearly completed track and overhead line over a distance of about 8000 feet, this additional trackage being practically an extension of two main sidings, one being extended about 6500 feet and the other about 150 feet. Eighty-pound rails are used. The overhead construction is Westinghouse catenary.

Large Steel and Concrete Viaduct.

A report from Columbia, S. C., says that the Seaboard Air Line is about to begin construction of the Lincoln-street viaduct, a steel and concrete structure which will cost nearly \$500,000, and which will be nearly a mile long. It will extend 4900 feet from Senate street to a point 50 feet beyond the city limits in Olympia Village. The Pennsylvania Steel Co. of Steelton, Pa., will furnish the steel work, and Alsop & Pierce of Newport News, Va., will do the concrete and masonry work. The steel will amount to more than 5200 tons in weight. The foundations of the viaduct will be made sufficiently wide to permit of double-tracking in the future.

Railroad Notes.

A press report from Rome, Ga., says that the Rome & Northern Railroad is rapidly laying track between Rome and Gore, 18 miles, and 70-pound rails are being used.

W. B. Thompson, president of the Cotton Exchange at New Orleans, has been elected president of the Public Belt Railroad of that city, succeeding J. W. Porch, resigned.

The North Carolina Midland Railway, which is in the Southern Railway Co.'s system, may, according to a report from

Winston-Salem, N. C., be extended to Danville, Va. A. B. Andrews of Raleigh, N. C., is president, and Fairfax Harrison of Washington, D. C., is vice-president.

The Santa Fe system, according to a dispatch from Chicago, has set out a plantation of eucalyptus trees in California covering almost 10,000 acres in order to provide timber for railroad ties and posts. It is also said that the company has ordered from Japan a supply of ties for five years.

A dispatch from Kansas City says that French capitalists have taken hold of the proposition to build the Cherryvale, Oklahoma & Western Railway, which has been planned for several years by S. M. Porter of Caney, Kans., and who has recently visited Paris in connection with the enterprise. The proposed route is from Caney, Kans., to Muskogee, Okla., and from Cherryvale, Kans., to Geary, Okla.

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

Big Timber Deal in Mississippi.

Announcement is made in a dispatch from Collins, Miss., to the effect that the International Harvester Co. of Chicago has purchased the stumpage holdings on several tracts of yellow-pine timber land in Marion county, Mississippi, embracing an area of approximately 50,000 acres. E. Lowe and S. B. Lowe of Grand Rapids, Mich., sold the property, and the purchase price is reported at \$1,500,000.

Buys 20,000 Acres of Timber.

Current reports announce the purchase by the Peavy & Burns Lumber Co. of Mansfield, La., of approximately 20,000 acres of timber lands near Oberlin for a consideration of nearly \$1,000,000. The property was sold by the Krause & Managan Lumber Co., and is located between the Whisky Chitto and Main rivers. It is stated that the purchasing company will erect a double band and circular sawmill of 100,000 feet daily capacity for the development of the timber.

Timber Purchase in Virginia.

A dispatch from Keyser, W. Va., states that the Alta Lumber Co., in which F. O. Havener and E. J. McGee of Parkersburg, W. Va., and E. Stringer Boggess of Clarksburg are interested, has purchased from the Altoona Lumber Co. about 9000 acres of hardwood and white-pine timber near Pulaski, Va. It is stated that there are several sawmills and a railroad on the tract, and that the purchasing company will develop the timber as rapidly as possible.

Colonists for Alabama.

[Special Cor. Manufacturers' Record.]
Washington, D. C., November 26.

The land and industrial department of the Southern Railway announced today through Mr. M. V. Richards the sale of a large tract of land and arrangements for additional acreage in Mobile county, Alabama, 18 miles north of Mobile, to Pittsburgh parties, the representatives of a large colony which will go South from that place. The first party represented 16 families, and about 50 more families have asked that land be reserved for them. They will engage in trucking, fruit-growing and general farming, paying particular attention to intensive cultivation of the soils. That region is in the truck and cane-raising district of the Gulf coast. Already several hundred cars of truck are shipped from Mobile county to Northern markets, and it is expected that this new colony will have within a season or two from 500 or more acres of such crops.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS' RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

To Make Spindles at Charlotte.

Referring to plans for manufacturing cotton-mill spindles at Charlotte, N. C., the Charlotte Chronicle says:

"The manufacture of cotton-mill spindles at home and in the land where the cotton is grown, and where it is to a large extent manufactured, the Spindle & Flyer Co. of this city will begin at once. This company, believing that such a product would find ready sale in the South on account of the large demand and that these spindles could be made in the South as well as in the North, has perfected all of its plans for the inauguration of cotton-mill spindles. The Southern Spindle & Flyer Co. has secured skilled labor from the North and from England for the product and of their presses and other products said to be more difficult to manufacture than the spindle."

"The making of machinery in the South has always been regarded as one of the undeveloped industries which offered a large field for investment, and already Charlotte has made steady progress in this line with her well-known foundries and machine shops, which are turning out articles of merit which are openly received by users of machinery everywhere. The claim has been made that if the South shall ever gain full control of the textile trade and excel in the same, that she must have the facilities for making her own machinery right at home, else she will be always at a disadvantage, in that she will have to go to other sections for the larger pieces of machinery and for other work in connection therewith. Already there is a growing realization of the importance of expanding the South's manufactures to include not only cotton, but all machinery used in the mill, and everything required to furnish and start going a first-class textile plant, and the step just taken by the company here above mentioned is one looking toward the final change whereby the South will get to that place where all of her manufactured products, or as much as can possibly be manufactured here, will be available at home."

Union Bleaching and Finishing Plant.

The Union Bleaching & Finishing Co. of Greenville, S. C., is considering further improvements to its plant. John W. Arrington, president and treasurer of the company, writes to the MANUFACTURERS' RECORD as follows: "We are intending installing electric drive instead of steam power. We are not expecting to have any great number of proposals made us on motors, nor have we fixed a date on which to close the matter. We are to have a special stockholders' meeting early next month to consider the advisability of increasing capital and doubling our equipment, which will not necessitate any additional mill buildings beyond a few new storage warehouses, as the building was first constructed with a view to carrying double its original machinery equipment. Our present machinery as well as that to be added will all be electric driven by power furnished by the Southern Power Co. our business has had an almost phenomenal development, as indicated by the fact that only six weeks ago we contracted

for machinery to increase our capacity 50 per cent., and now, in this short time, find it necessary to double it."

Consolidated Cotton Duck Co.

The Consolidated Cotton Duck Co. of Baltimore is planning changes in its list of officers. It contemplates electing Chas. K. Oliver, now president, to the position of vice-president and treasurer, and he will probably be succeeded as president by Thomas M. Turner, president of the J. Spencer Turner Company of New York, which is the selling agent of the Consolidated Company. Messrs. George K. McGaw and David H. Carroll of Baltimore will continue as vice-presidents, and two additional vice-presidents will be elected. Treasurer H. L. Smith will be elected secretary to succeed C. S. Green, who is to take charge of the Columbia (S. C.) branch of the company. Mr. Smith will also be elected assistant treasurer.

The Locke Cotton Mill.

The Locke Cotton Mills Co. of Concord, N. C., has completed its buildings and is installing machinery for a daily output of 40,000 yards of high-grade colored cotton goods. Production is expected to begin by February 15, and the equipment will comprise 35,000 spindles, 1000 looms, dye-house and finishing plant. Both steam and electric power will be used, from 1300 to 1400 horse-power. The company's officers include J. Locke Erwin, president and treasurer; Geo. W. Watts, vice-president; Claude Ramsaur, secretary. Messrs. Frank P. Sheldon & Sons of Providence, R. I., are the engineers in charge. Organization of the Locke company and details of plans were announced some time ago by the MANUFACTURERS' RECORD.

The Lone Star Cotton Mill.

The Lone Star Cotton Mill of McKinney, Tex., has been organized with a capital stock of \$200,000 to build the plant announced last week by the MANUFACTURERS' RECORD. Officers have been elected, including the following: President, J. Berry Burris; first vice-president, S. D. Heard; second vice-president, J. T. Crouch; treasurer, J. L. White; secretary, W. B. Newsome.

The Finwin Cotton Mill.

The Finwin Cotton Mill of North Wilkesboro, N. C., has been organized with a capital stock of \$200,000 by T. B. Finley of North Wilkesboro, J. Locke Erwin of Concord, N. C., and others.

The Palmetto Hosiery Co.

The Palmetto Hosiery Co. of Jonesville, S. C., is being organized with a capital stock of \$75,000 to succeed the Jonesville Knitting Mills. E. F. Kelley will probably be president.

Jennings Cotton Mill Co.

The Jennings Cotton Mill Co. of Lumberton, N. C., has been incorporated with a capital stock of \$500,000 by H. B. Jennings, L. H. Caldwell and others.

Textile Notes.

It is reported that the Natchez (Miss.) Cotton Mills will install machinery for manufacturing print cloth.

Geo. P. Ide, A. H. Robbins and others of Jacksonville, Ala., are reported as to build a weaving mill.

The Industrial League of Cass county, Atlanta, Tex., has published an attractive pamphlet showing some of the inducements offered by the county to investors, such as natural gas, glass sand, hardwood timber, iron ore, fireproof clay and common red clay and artesian water flowing at Atlanta 200,000 gallons a day from a depth of 800 feet.

FOREIGN LETTERS

The MANUFACTURERS' RECORD is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. Some of these letters indicate the disposition of foreigners to buy American goods, and are therefore of interest to our readers.

Successful With American Tools.

American Machinery Import Office, Zurich 1, Weinbergstrasse 24, Switzerland, writes the MANUFACTURERS' RECORD:

"We have been greatly recompensed in our efforts to introduce American machine tools, small tools and first-class hardware. With a few exceptions we may say that our connections with American manufacturers have been most profitable and pleasant. We are especially looking for new tools for the machine shop. Our salesmen are known to bring the newest and best things from America, and have considerable success in their sales. We represent the Brown & Sharpe Manufacturing Co., the Pratt & Whitney Company, Ballard Machine Tool Co., Gridley or Windsor Machine Tool Co., Ingersoll Milling Machine Co., etc., but we now seek for our small-tool department to add as many good lines as possible. We introduced a great many specialties with astonishing success over here. There is certainly a demand for good tools in this country, although trade has not yet revived to an extent to be compared with America. If you are aware of any new tool fitting in our lines, especially for metal workers, from a drawing or measuring instrument to the least labor-saving tool for the machinist, please inform us, and we assure you we shall know how to handle it and work to our mutual advantage."

As Agent in Buenos Aires.

Charles Altschul sends the MANUFACTURERS' RECORD a circular-letter as follows:

"I intend leaving Europe shortly in order to establish myself in Buenos Aires as an agent for foreign firms, and I beg to offer my services. I am 32 years old, and have been in the export trade for 15 years, the past three years being foreign traveler to Messrs. Lemire Bros. & Co., Antwerp, the well-known South American shippers. I speak English, Spanish, German and French. I am at your command for any information you require. The highest references are at your disposal. Present address for all communications, 227 Avenue Marcgrave, Antwerp, Belgium."

Wants Glass Plant Equipment.

C. C. MacKee Company, No. 4 Queen's Road, Central, Hongkong, China, writes the MANUFACTURERS' RECORD:

"We would like to receive prices and literature for complete machinery equipment for making window glass, mirror plates, lamp globes, shades, etc., price of outfit not to exceed \$35,000 or \$40,000 gold; also price of erector for period of six months, and of operative to teach the proper glass-making methods. Our Chinese customers are already operating a plant, but want to increase and become up to date. Anything you may do to put us in line for the information wanted will be highly appreciated."

Manufactures for South Africa.

W. O. Smith & Co., 23 Produce Exchange, New York, write the MANUFACTURERS' RECORD:

"One of our friends at Cape Town, South Africa, for whom we act as forwarding agents, writes us that they are represented all over that country, and in a good position to introduce business for manu-

facturers. Especially cheap line of 'K. D.' furniture, spokes, hubs and felloes for wagon makers, oak staves and advertising and household novelties. Catalogues, with prices and terms, can be sent to us to forward with other goods."

Wants Brewing Machinery.

Odulfo Cardoso, Capital de Goyaz, Brazil, writes the MANUFACTURERS' RECORD: "Please put me in communication with a factory or factories making equipments for breweries. I want to set up a small plant with a capacity of 500 to 1000 quarts (litres). At same time I would like to learn a rapid process for making beer from glucose or with it. Would like to have correspondence addressed me in Spanish or French. Send catalogues."

American Hardware for Greece.

S. M. Pamfilis, 10 Diamond Square, Pittsburgh, Pa., writes the MANUFACTURERS' RECORD:

"The undersigned is a representative of European hardware at Greece, and desires to handle the American hardware, light machinery, paint, etc. If there is anybody interested, please send catalogues and price-lists to me. Please state freight charges to New York."

Wants Egg Powder.

E. Assenmacher, 64 Rue du Marche, Brussels, Belgium, writes the MANUFACTURERS' RECORD:

"Having an inquiry for genuine egg powder, you will oblige me greatly if you could mention my name to some important manufacturers of this product."

Cut-Over Lands for Farms.

Replying to an inquiry of the MANUFACTURERS' RECORD as to the nature of the applications for the purchase of our cut-over lands of the Houston Oil Co. of Texas, Mr. Harry A. Black, general manager, writes:

"Applications are coming from all points of the compass. In the first place, there is a large number of local people who desire to purchase—mill employees, railroad employees and farmers, and many applications come from Illinois, Indiana and Ohio. Aside from the applications to purchase small tracts, we are having repeated inquiries for sales of land in larger quantities, from 1000 to 100,000 acres, for agricultural purposes. These cut-over pine lands are selling from \$5 to \$15 per acre, and will produce just as much in the way of agricultural products as the prairie lands. The rainfall is even and sufficient, and the timber protection surrounding it is a safeguard against high winds and extreme frosts. The extremes of the thermometer both ways are modified when you go into the timber belt of East Texas and West Louisiana."

Winston-Salem Activity.

[Special Cor. Manufacturers' Record.]

Winston-Salem, N. C., December 1. During the past 11 months there have been 1534 real estate transfers, and the sum of \$1,468,792.46 changed hands in the deals. Eleven hundred and twenty-two of the deeds called for town lots, and these brought \$1,125,284.82, and 412 called for farming lands, which sold for \$343,507.64.

The county has spent \$145,484.26 during the past year, one-third of this amount being paid out for building good roads and the rest in supporting the county institutions and building county buildings.

Winston-Salem has spent over \$174,000 within the past six months for municipal improvements of different kinds. Three miles of bitulithic streets have been paid at an estimated cost of \$135,000, and several public buildings have been erected.

CLARENCE SCROGGS.

MINING

North Carolina Minerals.

The financial stringency and general business depression that swept over this country during the latter part of 1907 and the greater portion of 1908 had a decided effect upon the mineral production of North Carolina during 1908. This was felt especially in the building-stone and clay-product industries, which are largely dependent upon building trades for their market. As these form by far the larger portion of the mineral production of the State, there was, consequently, a considerable falling off in the total value. Its effect, however, was also noticed in the production of practically all of the minerals of the State, there being but one or two that showed any increase in production for 1908 over that of 1907.

The total value of the mineral production for 1908 was \$2,307,116, as compared with \$3,173,722 value of the 1907 production, a decrease of \$766,606. This mineral production can be readily divided into:

Metals.....	\$177,000
Non-metallic minerals.....	258,902
Structural materials.....	1,771,603
Pottery and pottery clay.....	99,011
Total value.....	\$2,307,116

In the production of the precious metals North Carolina easily maintains first place in the Eastern States, although its total production is small, says a bulletin of the State Geological and Economic Survey. The gold production of 1908 was 4716.32 fine ounces, valued at \$97,495, an increase of 740.24 fine ounces and of \$15,302 in value over the production of 1907. The county producing the largest amount of this production was Montgomery, with Rowan second. The output of silver and copper, which are very closely related to each other, was very greatly below the production of 1907, the copper being valued at only \$2560, as compared with \$116,410, the value of the 1907 production. All of the principal copper mines were idle during 1908.

In the non-metallic minerals there was a slight increase in the production of millstones, but a decided decrease in the production of all the others.

The value of the structural materials produced during 1908, of \$1,771,603, was a decrease of \$389,415, as compared with \$2,161,018, the value of the production of 1907.

The greatest decrease was in the production of granite and common brick. In 1907 the value of the granite production was \$906,476, while in 1908 it dropped to \$802,927, a decrease of \$103,549. The production of common brick in 1907 was 174,750,000, valued at \$1,150,185, while the production of 1908 has fallen off to 144,192,000 brick, valued at \$900,611. There were slight gains in the production of sandstone, marble and lime.

The value of the production of pottery and pottery clay in 1908 was \$99,011, an increase of \$3284, as compared with \$95,727, the value of the 1907 production.

With the exception of gold, the production of all the minerals is affected by the financial condition of the country, and in many cases the increase or decrease in the production of a mineral is entirely due to increased prosperity or financial depression of the country.

Will Increase Ore Production.

The MANUFACTURERS' RECORD has received information regarding the plans of the Stewart-Durfee Mining Co. of Attalla, Ala., which recently purchased iron mines from D. P. Montague of Chattanooga. The company's property is located at Attalla, and consists of about 175 acres of land, under which is a vein of iron ore stated to be from three to three and one-

half feet thick. It is a self-fluxing red ore, and is said to bear from 40 to 42 per cent. iron, the total being estimated at approximately 2,500,000 tons. It is the intention of the company to drive a new slope and increase the capacity of its mines from 4000 tons per month to 6000 or 7000 tons. The Stewart-Durfee Mining Co. is a partnership firm, C. E. Stewart of Attalla and Joseph A. Durfee of Gadsden being members. C. E. Stewart is the engineer in charge of operations.

Tennessee Refining Co.'s Plans.

Authentic information has been received by the MANUFACTURERS' RECORD regarding the plans of the Tennessee Refining Co. of Black Fox, Tenn., which recently executed a deed of trust for \$50,000 first mortgage bonds for the purpose of increasing its facilities and furnishing more working capital. The company owns 143 acres of land containing white silex, which is said to be of fine quality and estimated to produce 500,000,000 tons. It has erected a refining plant 150x50 feet, electric-light plant, etc., and will install a pressed-brick machine of 10,000 daily capacity to manufacture white and enameled brick. The company states that it has closed a contract for European delivery of 10,000 tons of silex, which it will ship through the port of Norfolk.

Will Develop Iron Deposits.

The MANUFACTURERS' RECORD has received authentic information regarding the plans of the Pigeon Mountain Iron Co., J. C. Haas, president, 732 Candler Building, Atlanta, for the development of iron-ore lands in Walker county, Georgia, near Lafayette. The company's property consists of 3500 acres of red-ore land, located between the Chattanooga Southern and Central of Georgia railroads, to each of which spur tracks will be constructed. It is intended to begin operations with an output of 200 tons of ore daily and increase the production as the demand justifies. M. T. Singleton is in charge of operations as chief engineer and general superintendent, and states that the company will purchase two or more light revolving steam shovels for stripping.

Southern Appalachian Operators.

At a meeting of Southeastern Kentucky and Tennessee coal operators, recently held at Knoxville, the Southern Appalachian Coal Operators' Association was organized with the following officers: B. A. Morton, Knoxville, president; H. M. Lafollette, Lafollette, Tenn., first vice-president; M. J. Moss, Pineville, Ky., second vice-president; James Woolridge, Knoxville, third vice-president. The selection of a secretary was delegated to the executive committee, which has called a meeting for December 20.

The Franklin Coal Co.

Formal organization of the Franklin Coal Co. has been effected at Cumberland, Md., by the election of Michael P. Fahey of Westernport, Md., president and general manager; P. H. Brown, Frostburg, Md., vice-president, and Dr. T. L. Wilson, Piedmont, W. Va., secretary-treasurer. It is the purpose of the company to develop coal land in the George's Creek district.

To Develop Iron Deposits.

Dr. Benjamin F. Fry of Abingdon, Va., and associates have organized the Crandall Tennessee Iron & Realty Co., with a capital stock of \$100,000, for the purpose of developing iron deposits and other minerals in the vicinity of Crandall, Johnson county, Tennessee. It is stated that \$25,000 of the capital stock has been paid in, and that the company expects to begin operations within 30 days.

MECHANICAL**BIG SHOPS AT BOGALUSA.****Locomotive and Car Plant of New Orleans Great Northern.**

One of the most extensive railroad plants in the South is that at Bogalusa, the plant of the New Orleans Great Northern Railroad, which extends from Jackson, Miss., to New Orleans. This road passes through an extensive undeveloped section

to erecting bay; building superstructure is of reinforced concrete and steel construction, and has corrugated muck bar iron roof; floor is of three-inch yellow pine laid on 4x6 sleepers embedded in sand; steel columns are designed to support a 100-ton crane runway, with traveling crane over erecting bay; for present needs a five-ton traveling hoist on bracket runway is provided on north side of bay.

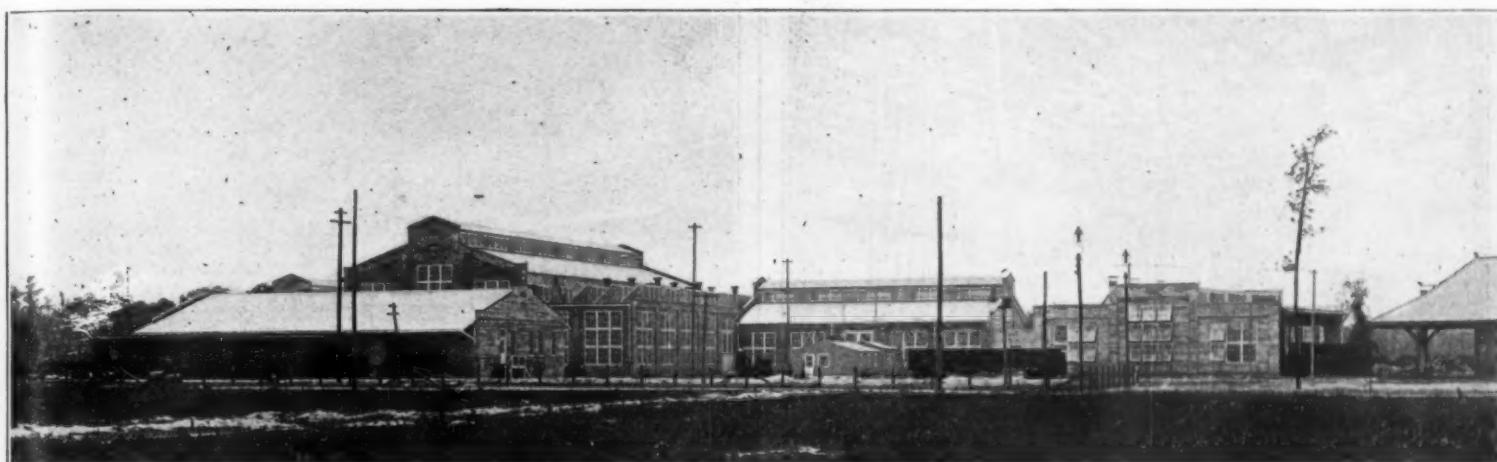
The toolroom, 21 feet square, is in the wing occupied by the forge shop, is sepa-

walls 12 feet high. Each room has an outside door and a double automatic fire door leading into coach-room.

The main central portion of building, 90x90 feet, is used for coach repairs and painting, and is provided with four tracks on 20-foot centers. The floor in this building is of three-inch yellow pine laid on 4x6-inch sleepers embedded in sand.

The engine-house is provided with four stalls and concrete engine pits, two connected by a driving wheel drop pit, in

the main line directly over the bunkers by an electrically-operated hoist, power being supplied by a 40-horse-power induction motor. This hoist will pull a loaded coal car weighing 150,000 pounds up the 20 per cent. grade at a speed of 30 feet per minute. The bunkers are equipped with four steel aprons and gates, two on a side, permitting coal to be loaded by gravity directly into the locomotive tenders on either side. A wood canopy covers the bunkers and hoisting machinery, the lat-



NEW ORLEANS GREAT NORTHERN RAILROAD SHOPS AT BOGALUSA, LA.

of pine forests (commonly known as the "Ozone Belt") in Mississippi and Louisiana. The present operating mileage is about 273, including the branch lines over which passenger and freight service is being maintained.

The locomotive and car repair departments are designed not only to accommodate the New Orleans Great Northern, but also to repair and maintain a portion of the logging machinery of the Great Southern Lumber Co., comprising locomotives, steam log rollers, steam skidding machines and cars. The plant is designed for handling 50 locomotives of American standard types, 20 geared locomotives, 10 steam log-loading and skidding machines and 5 Barnhardt steam log loaders. In addition, there are provided repair facilities for about 3000 freight and logging cars and 30 passenger cars. Note the five accompanying views of the plant.

There are five main buildings and seven auxiliary structures; the main buildings comprise locomotive shop (which includes erecting, machine, forge and boiler and tank departments), coach shop (includes woodworking shop), engine-house, general storehouse and office building, and locomotive coaling plant. In addition there are an oil storage house, lavatory buildings, transformer house for electric service, material storage building, cinder and ash pit and depressed car wheel handling pit. The layout is designed to provide for the necessary terminal facilities as well as those for general repairs.

The buildings in general have walls constructed from the foundation up of reinforced concrete, made from washed creek gravel, an abundant supply of gravel and sand being obtained from Bogue Luse Creek, adjacent. All walls are reinforced with steel bars, the walls in general being eight inches thick. The window and door frames were placed in the concrete forms and the walls cast around them, thus insuring good anchorage and neat joints.

The locomotive shop is 176x120 feet, with a 60x110-foot wing at the west end, occupied by the forge shop; it is of transverse type; erecting bay is 76 feet wide, 37 feet clear under roof truss, and has eight concrete engine pits on 22-foot centers; machine bay is 44 feet in width, and extends entire length of building, adjacent

rated from the forge shop by an eight-inch concrete wall and connected with the machine shop by a double door and two windows fitted with diamond wire-mesh panels.

The forge shop has concrete walls, steel columns and roof trusses and a corrugated-iron roof; also a six-inch floor of tamped screened cinders, and is separated from the machine shop by an eight-inch concrete fire wall having an automatic fire door.

The coach shop, 161x91 feet, is of rein-

which wheels are handled by means of a traveling pneumatic jack of telescoping type. The building is of reinforced concrete construction, uniform with the shops, and has wood roof framing and a tar-and-gravel composition roof. The sheathing is two-inch matched yellow pine, and the purlins and framing are sufficiently heavy to provide a "slow-burning" type of construction.

The storehouse and office building, 121 feet 4 inches by 61 feet 4 inches, is of reinforced concrete and "slow-burning"

ter being housed on three sides to give protection to the hoisting machinery.

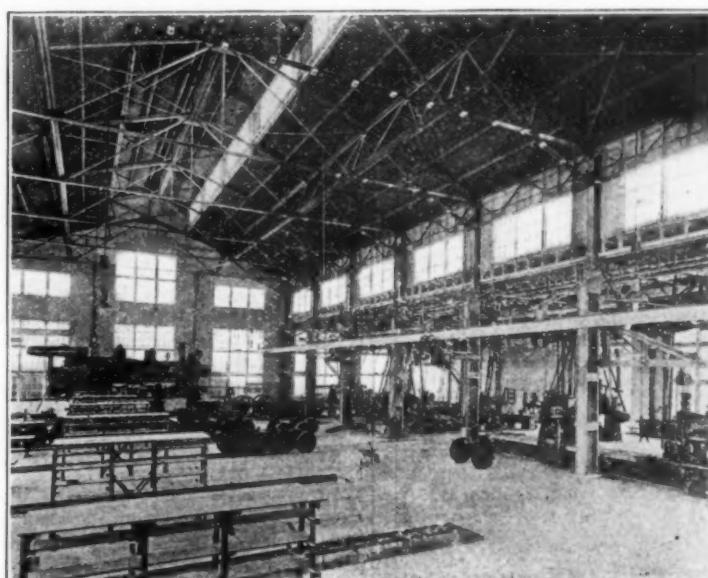
The oilhouse is of corrugated iron on a wood framework, and the tanks are of reinforced concrete lined with sheet metal, the top of the tanks forming the floor of the delivery and waste-storage room. The five tanks have a capacity of 23,000 gallons, and each is provided with a rotary hand pump and galvanized-iron sink. The tanks are filled through manholes in the concrete tops.

The sandhouse is a frame structure 15x30 feet, sheathed with drop siding and covered with a composition roof. Wet and dry sand storage bins are provided, and also an elevated platform and door, from which a man can step directly onto the running-board of an engine.

The employees' lavatory, 24x32 feet, is a corrugated-iron building located between the locomotive shop and the engine-house, convenient to all departments. The lavatory building has a concrete floor sloping to a bell trap near the center of the room to permit flushing with a hose. The room is equipped with 100 perforated sheet-steel clothes lockers, a 20-foot automatic range closet, a 20-foot porcelain enameled iron wash sink and two four-foot enameled urinals.

The transformer-house, 16 feet square inside by 9 feet high, is fireproof, having reinforced concrete walls, steel channel purlins and a corrugated-iron roof. The concrete floor is raised 12 inches above grade to avoid dampness, and is laid on a cinder substructure. A wood framework of seasoned yellow pine is set in the building walls for supporting the wires and cables.

The machine and boiler shop tools are divided into three groups, each group being driven by a 40-horse-power induction motor mounted on a steel bracket, supported by a building column. The main line shaft is so arranged that any motor may be out of service and yet the important tools may be operated by coupling its section of the main line shaft to adjacent sections driven by the other motors. The west group includes the lathes, driving-wheel press, shaper, milling machine and drill presses. The middle group includes the planers, boring mill, slotter, grinders, etc., and the east group comprises boiler



LOCOMOTIVE SHOP AT BOGALUSA. INTERIOR VIEW.

forced concrete construction, having wood roof framing covered with corrugated iron.

The section devoted to woodworking machinery is 50x91 feet, and separated from the coach department by an eight-inch concrete fire wall and two double automatic fire doors. Woodworking tools are arranged on each side of the track leading to the freight car repair yards.

In the west 20 feet of the building are the brass-finishing, upholstering, paint-storage and bench-work rooms, separated from the main section by an eight-inch fire wall and from each other by eight-inch

wood construction, with a corrugated-iron roof. The north 30 feet of this building is divided into suitable rooms designed for the offices of master mechanics, clerks and storekeeper, and storerooms for stationery and supplies. The remainder of the building is used for the storage and handling of general supplies required in the operation and maintenance of the road.

The coaling plant is a wood structure, with steel-lined bunkers, having a storage capacity of 300 tons. Standard coal dump cars are pulled up a trestle having a 20 per cent. grade onto a track 36 feet above

and tank-shop machinery, including pressure pump for the water system.

The toolmaker's lathe and grinding machinery in the toolroom are driven by a five-horse-power motor mounted on wall bracket, and in case of necessity the toolroom line shafting can be coupled to that in the forge shop and these tools driven by a forge-shop motor. Jib cranes are liberally provided for use in stripping and assembling locomotives undergoing repairs.

30-horse-power induction motor mounted on a steel and concrete bracket. In addition to 11 forges, the blower furnishes blast for furnaces used with hammer, bolt header and flues. All blast ducts are laid under ground in salt-glazed sewer tile. Power hammer, furnaces and forges are served by two four-ton post cranes conveniently located.

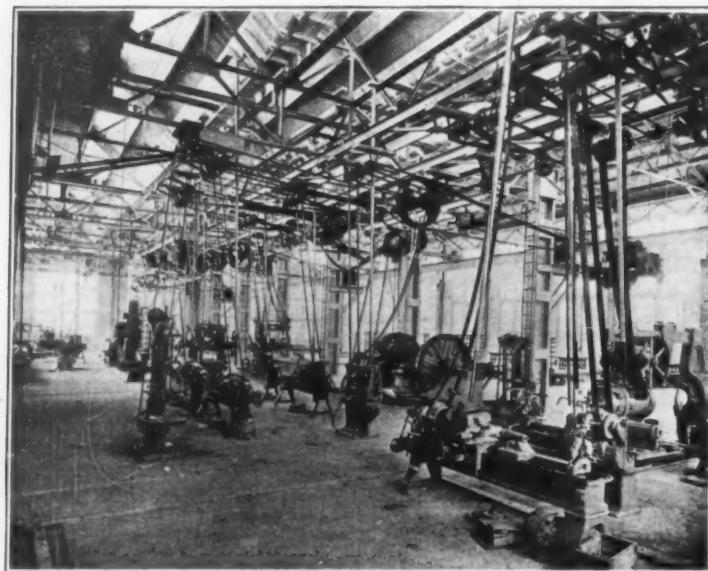
Three-phase induction motors are used throughout, nine motors being installed at

the plant of the Great Southern Lumber Co., where fire pumps are installed in connection with an elevated tank.

The shops have good fire-protection facilities, the yards being supplied with a network of water mains of ample size, with well-located fire hydrants and hose valves. Distributed throughout the buildings are hose racks, each containing 50 feet of underwriters' linen fire hose permanently

three-eighths to six inches in diameter. It is arranged so that the work may be cut off any desired length, and is very rapid in its operation.

"The cutter wheel is direct connected by means of a knuckle-joint shaft to a 12x3-inch pulley, which should travel about 200 R. P. M. The object of the knuckle-joint drive is to permit the tubes or pipes to be run out back of the machine,

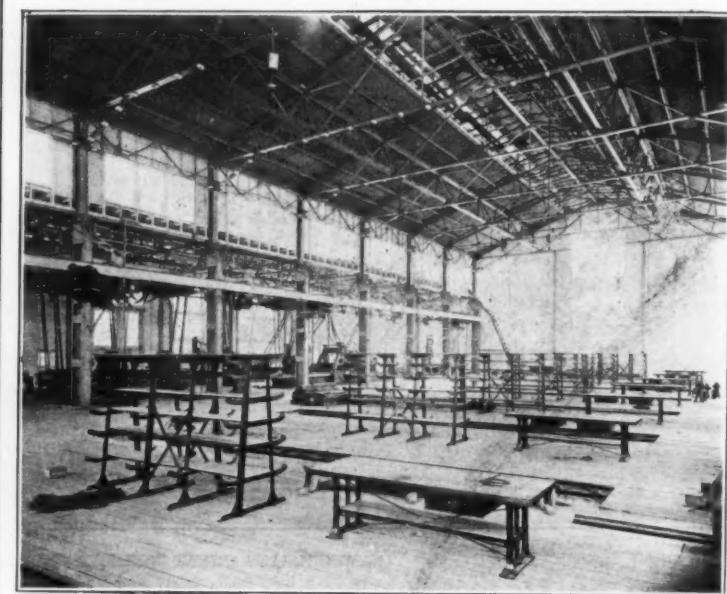


MACHINE BAY IN BOGALUSA LOCOMOTIVE SHOP.

The heavier machine tools are likewise served by similar cranes, ranging in capacity from one to four tons. Each crane is fitted with a chain hoist. Running lengthwise of the erecting bay and near the machine bay is located the floor-controlled electric traveling hoist of five tons capacity, equipped with three-phase induction motors operating at 460 volts. This hoist handles principally the driving-wheel work between the various pits and the wheel lathe, but in addition it serves for

present, with an aggregate horse-power of 325. Each motor is capable of carrying 25 per cent. overload continuously and 100 per cent. overload momentarily. They are each controlled by a starting compensator, and are protected when starting by fuses, and when running by both fuses and automatic circuit-breakers provided with no voltage release coils.

There are 28 electric 460-volt arc lamps installed throughout the yards and buildings, 14 of these being in the locomotive



ERECTING BAY IN BOGALUSA LOCOMOTIVE SHOP.

attached to hose valves and each provided with a hose nozzle.

For boiler washing a triplex pump of 225 gallons per minute capacity was placed in the machine shop.

Drinking fountains are placed in convenient locations in the locomotive, forge and coach shops, and in the engine-house.

An Ingersoll-Rand air compressor of 275 cubic feet capacity, belt-driven directly by a 50-horse-power motor, furnishes compressed air for shop purposes. This compressor delivers air at 100 pounds pressure into a storage reservoir supported on the roof trusses, from which point air is piped to valved air outlets throughout the locomotive shop, forge shop, coach shop and engine-house, and also to air valves distributed among the freight car repair tracks.

The engineering and construction of the complete plant ready for occupancy, which was handled by the Arnold Company, was executed by A. R. Kipp, engineer in charge, and H. H. Dickinson, superintendent of construction. P. L. Battie, chief engineer railway shops department, had general supervision over the work.

Ryerson Flue-Cutting Machine.

An accompanying view illustrates the Ryerson flue-cutting machine, manufactured by Jos. T. Ryerson & Son of Chicago. This firm says:

"There has long been a call for a good substantial machine for cutting pipe or tubes, of sufficient capacity to handle the general range of work, designed in such a way so as to occupy a small amount of floor space and simple enough in its operation to permit of its being run by unskilled help."

"After years of experimenting along this line Joseph T. Ryerson & Son have placed on the market the machine illustrated.

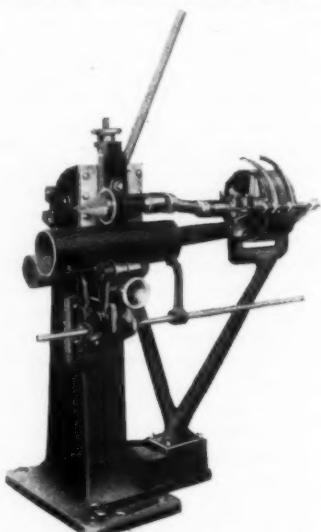
"These machines are now in use in a number of the leading shops, and are everywhere giving satisfaction."

"The Ryerson flue-cutting machine is practically noiseless in operation, and has a capacity for cutting tubes or pipes from

so that they may be cut to any desired length. The feed of the cutter is accomplished by means of the hand lever shown, balance weight being provided to secure an automatic release. The lever is so balanced that it requires but very little pull upon it to cut tubes of any size."

"The rollers on which the tubes revolve are arranged so they can be brought close together or spread apart quickly to the proper distance for taking care of the various sizes of tubes or pipe."

"For reaming out the slight burr from the inside of the tube, which is sometimes

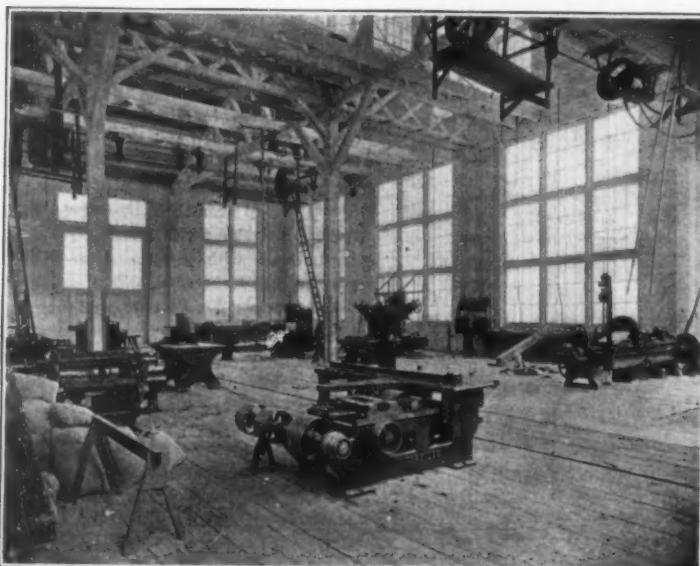


RYERSON FLUE-CUTTING MACHINE.

caused by the cutting wheel, a fluted reamer is provided and attached to the end of the shaft, as shown in the cut."

"This reamer will ream tubes up to and including three inches in diameter. A larger reamer for tubes of greater diameter can be furnished and attached to opposite end of the shaft just outside of the end bearing box."

"Each machine is furnished complete with one cutter wheel four and one-half inches diameter and a fluted reamer for handling tubes up to three inches in diameter, and all necessary wrenches. It weighs approximately 825 pounds."



WOODWORKING SHOP OF BOGALUSA PLANT.

general transportation of heavy material.

The woodworking machinery is divided into two independent groups, each operated by a 40-horse-power induction motor mounted on overhead platform. The shafting in this building is supported by 4x12-inch latticed wood struts fastened to the bottom chord of the roof trusses, and at the ends set into the concrete end and partition walls.

The forge-shop tools consist of power hammer, bolt header and flue machinery, together with forge blower, driven by a

shop, 3 in the engine-house and 11 in the yards.

The remainder of the artificial shop lighting is by means of incandescent lamps used on drop cords and adjustable bench fixtures, a total of about 200 lamps being installed.

Plug receptacles for extension cord lights are provided at numerous places in the locomotive shop and engine-house, allowing any point in either building to be easily reached.

Water for shop purposes is piped from

Lidgerwood Cableways at Panama.

The Panama Canal is now in its fourth and final stage. The first stage was the sanitation of the Canal Zone; the second, the rebuilding of the Panama Railroad so as to supply facilities for transporting the spoil from the excavations to the dumps; the third, the excavation of the canal; the fourth and last stage, the building of the Gatun dam and locks and the locks at Miraflores and San Miguel. On August

forms for the walls and floor. Four cableways arranged in pairs on two sets of towers handle the broken stone, and a single cableway with independent towers unloads the sand from the barges and deposits it on a storage pile. Each cableway has a span of 800 feet. In the duplex cableways the cables are 18 feet apart. This corresponds with the distance apart of the transverse bulkheads in the barges. The cableways are all mounted on steel towers

in the capacity of the cableways is due to the ease with which the operation of the cableways is controlled; the rope-lead that simultaneously raises and traverses the bucket; the high-speed shock-absorber with which the fall-rope carrier is equipped, and a new type of button-stop.

The hoisting and conveying machinery in the head tower is controlled by an operator in the tall tower stationed on an elevated platform commanding a clear view of the bucket at all times and in all positions. He controls two 150-horse-power motors by master controllers of the New York Subway type, and the airbrakes by two levers operating magnet valves 800 feet away. The physical effort of operation is so easy that the operator can comfortably maintain the high speed. In all previous cableways this effort was so fatiguing that, although it was possible to attain a speed of 35 round trips per hour with mechanical levers, this could not be sustained for any length of time.

The rope-lead, which simultaneously hoists and traverses the bucket, causes the latter to move in a curved line corresponding somewhat to the hypotenuse of a triangle, instead of moving on the vertical and horizontal sides. Considerable increase of speed and diminution of travel is thereby effected. The high-speed shock-absorber with which the fall-rope carrier is equipped is the invention of Spencer Miller. It permits the carriage to travel at the unusual speed of 2500 feet per minute, more than double the speed of any previous cableway. The button-stop employed has been successfully tested experimentally with a fall-rope carrier running at the speed of 3000 feet per minute.

On account of the ease of operation of these cableways, considerable difficulty has been experienced in restraining the operators from racing with each other. The cableways have frequently been operated at a speed of 3000 feet per minute, which, being at present too severe for the fall-rope carriers, is now limited to 2500 feet per minute. Some of the small pieces

of the materials, but they will never be called upon for such rapid work. While they will handle the entire amount of concrete, and besides this the wooden forms and the many tons of old rails which are to be put into the concrete for reinforcement, there are eight of them as against five of the others, and each will have much less to do. This is necessary, as the placing of the concrete requires care and deliberation. The immense quantity of concrete material for the Gatun locks will perhaps be better appreciated if one remembers that handled separately it amounts to more than 3,300,000 cubic yards, while the total cubical contents of the Great Pyramid is only 3,800,000 cubic yards. Tradition says that it took 100,000 men 100 years to build the Great Pyramid. The Gatun locks are morally sure to be finished before January 1, 1915, and may be ready for opening the canal for use in 1913, thus justifying the confidence of "that 1913 crowd."

See two accompanying views of the Lidgerwood cableways, which are built by the Lidgerwood Manufacturing Co. of 96 Liberty street, New York.

The New Desmond Injector.

An accompanying illustration presents a view of the new Desmond model U injector manufactured by the Desmond-Stephan Manufacturing Co. of Urbana, O. This company says: "The secret of the new model lies in the construction.

"It is made with a two-piece body, with the parts connected by a union nut.

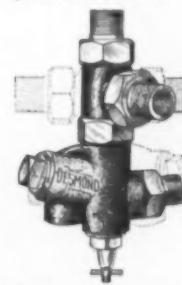
"When loosened, the upper part with the suction connection can be turned in any direction desired.

"When the connection is made to the boiler the nut is tightened and the injector is ready for work.

"This means that the injector can be connected with either side of the boiler.

"That the piping and valves can be arranged to suit your needs and your convenience; not to fit the injector.

"That no matter from what direction you want to take your suction, you can meet your suction pipe from any angle with the injector connections.

**THE DESMOND INJECTOR.**

"The new model solves completely the greatest problem of manufacturer and user.

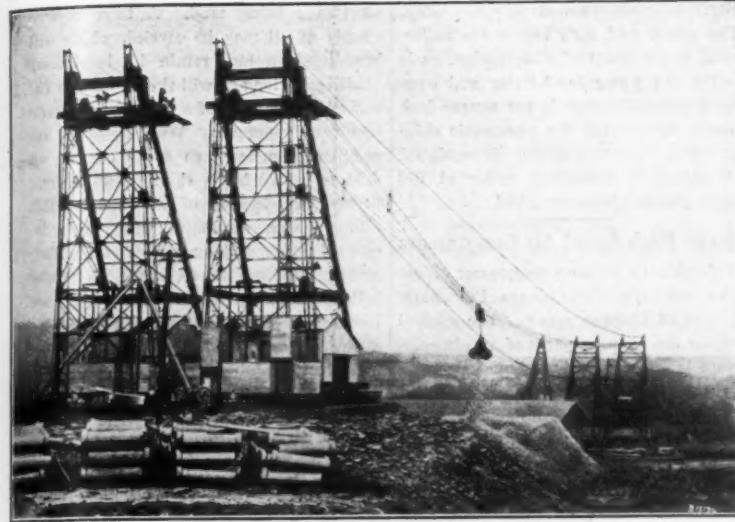
"It is 'flexible.' One injector will answer your injector needs in every way, shape and manner. The Desmond is built to fit old connections, and its connections are interchangeable with those of the leading upright injectors.

"It does away entirely with the need for special patterns, right and left, front and back and other variations.

"The Desmond will fit any space, can be put in any position or adapted to any conditions peculiar to your needs.

"The model 'U' starts low, at from 20 to 25 pounds. It works high, from 175 to 190 pounds, lifts water 25 feet, handles water at 130 degrees and delivers it to the boiler at almost 212 degrees. It is absolutely automatic. It will not buck or break under the most severe and continued jars.

"All tubes screw into the body and cannot fall out, be lost or damaged when the

**LIDGERWOOD CABLEWAYS AT PANAMA.**

1 of this year the excavation (182,000,000 cubic yards, of which 40,000,000 cubic yards available had been done by the French) had advanced to a point where only 101,000,000 cubic yards remained to be done, which, as officially stated by Col. Goethals, can be finished by August 1, 1911. The remaining excavation is proceeding at the rate of about 3,000,000 cubic yards per month.

Keeping pace with the speed of excavation are the construction operations in connection with the Gatun dam and locks. Important parts of the mechanical equipment are the 13 Lidgerwood high-speed cableways, which were especially designed and installed for building the Gatun locks. Upon five of these, known as the unloader cableways, will fall the brunt of the work, and upon the ability of these five to handle the amount guaranteed, or more, must depend the question of whether the canal will be finished and in operation on January 1, 1915, or earlier. These cableways have exceeded their guaranteed capacity by such a large percentage that the engineers in charge of this section of the work are confident that it can be finished at a much earlier date. They are recognized unofficially by Colonel Goethals as "that 1913 crowd."

The work of these five cableways is to handle the broken stone and sand which will be required for the walls and floors of the locks. There are six locks, each 1000 feet long in the clear and 110 feet wide. They lie side by side in flights of three, making a total length of more than 3000 feet. Together they provide a total lift of 85 feet, with some to spare for changes in the initial water level. In these locks there will be used 2,000,000 cubic yards of broken stone, 1,000,000 cubic yards of sand and 2,200,000 barrels of cement. The stone and sand arrive in barges on a branch of the old French Canal. The unloader cableway takes it out of the barges with great grab buckets and delivers it 600 feet or more away in heaps in the storage yard. From here it is taken by the cars of an automatically-operated electric railway to the mixers, and from the mixers the concrete is taken in other electric cars to where the second set of eight cableways can put it in place in the

**OPERATING THE LIDGERWOOD CABLEWAYS.**

hoisted 85 feet, conveyed about 600 feet, dumped on the storage pile, and the carriage and bucket returned. This round trip has been made in one minute and eight seconds. The cableways were guaranteed to handle 50 cubic yards an hour each. They have carried 90 cubic yards in an hour, and the average operation up to date is 60 cubic yards per hour. This ought to be materially increased with practice. The present record is declared to be double that of any cableway previously employed anywhere.

The high speed and consequent increase

forming the heads of the fall-rope carriers are being replaced with heavier pieces, which, it is believed, will admit of even the higher speed.

Another feature of these cableways which is new is that the bucket is counterbalanced like a passenger elevator. Thus only the net load has to be hoisted and only enough power is required to do this and overcome friction and inertia.

The eight cableways used for putting the materials in place in the lock walls are similar in span, height, style of towers and method of control to those for unloading

bosses, which pass through the water-jacket space. The convenience of the tie bar construction is evident when access to the piston is desired.

"The frame is designed for ample strength without unnecessary weight, and with the light, but rigidly formed, pressed-steel oil shield, presents a most graceful appearance. This shield, when raised, permits greater convenience of access to the working parts than is possible in compressors or engines of usual types, whether of open or enclosed construction. The large hand-hole cover gives ample room for adjusting the piston-rod packing and for removal of crosshead pin."

Main bearings, crankpin and crosshead pin are of generous size, and the bearing surface of the crosshead shoes is liberal. Connecting rod is of forged steel, light, but strong, with wedge adjustment at each end. The crankshaft is a steel forging, with rigid crankarms. Counterweights secured to these arms give effective counterbalancing, and with the large flywheels insure freedom from vibration.

These compressors are built for belt, rope, chain or gear drive, as well as for operation by steam or gas cylinder. Our cut shows the compressor equipped with gas cylinder, using either gas or gasoline as fuel. The gas cylinder is of the valveless two-cycle type, simple in construction and reliable and efficient in operation. This compressor is a complete independent power unit. Such a machine is perfectly adapted for use where other sources of power are lacking, or for operating independently of the main power. As a portable compressor it fills every requirement. The fuel cost is low and expert attendance unnecessary."

The B. F. Avery & Sons' Plant.

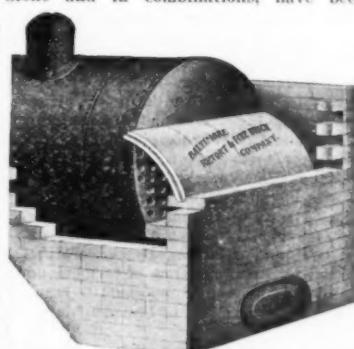
Construction is now progressing on the new plant of B. F. Avery & Sons at Louisville, Ky., and a view of the status of the work several weeks ago is presented herewith. The company says: "The concrete foundations and structures for same in the foreground are for the four-story-and-basement warehouse for finished goods, the dimensions of which are 122 feet wide by 368 feet long. The building on the far right hand, length of which is only partially shown in the picture, is the shear-room and forge shop, the dimensions of which are 96 feet wide by 480 feet long. The building in the center, which shows the steel structure above the walls ready to receive the roofing, is the foundry, 96

about 7th and Avery streets, and are located in the city limits in a rapidly expanding manufacturing district on the Southern Railway, Illinois Central Railroad and Kentucky & Indiana Bridge Co. Belt Line Railroad. In addition to the buildings, the lumber yards and other departments of the business will very largely utilize all of the 35-acre tract. It is expected that the buildings will be completed by April, 1910, and the company designs to have the best-equipped plant in the world for the manufacture of plows and cultivating implements."

The Westlake Construction Co. of St. Louis is the contractor, and Geo. M. Brill of Chicago is the engineer in charge.

Improved Combustion Chamber Arches.

The expansion and contraction of return tubular boilers under fire have made it difficult to construct over combustion chambers gasproof arches that would not crack the rear walls. Various materials, alone and in combinations, have been



IMPROVED COMBUSTION CHAMBER ARCH.

tried, but lack of elasticity has always been a serious defect.

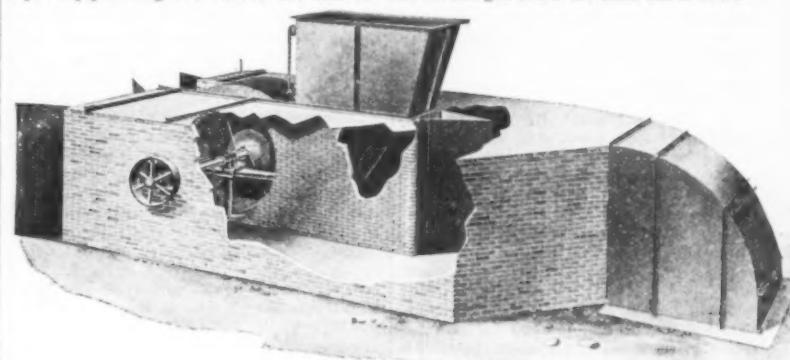
To overcome these difficulties the Baltimore Retort & Fire-Brick Co., Hull and Nicholson streets, Baltimore, is making two fire-brick shapes that eliminate any pockets to retain heat and compel the gases of combustion to take the shortest course from the fire box to the tubes where they make boiler efficiency. (See accompanying illustration.)

A grooved fire-brick block is set (grooved side up) in the rear wall and extending into the combustion chamber. A few courses of bricks are laid on this to hold it in place, but the wall does not have to be built to the top of the boiler, as

tile, by becoming more or less perpendicular, reciprocates perfectly. These sections are 12 inches wide, and have rabbed edges to break joints.

Accessibility of boiler tubes for cleaning, repairing, etc., is another advantage. By simply lifting the curved tile out of

The new fan illustrated on the left is a 72-inch Sirocco patented double inlet mine fan, having a 72-inch-diameter wheel arranged primarily for blowing, but reversible. A typical arrangement of such installation is shown in Fig. 2. The Sirocco fan discharges down the same main down-



1.—AN INTERESTING FAN INSTALLATION.

the groove the whole boiler head is exposed.

An Interesting Fan Installation.

As evidence that mine fans of small diameter are gaining in favor, the accompanying illustration (Fig. 1) is presented.

The view was taken during the erection

cast as the former fan, thence about one-half mile distance into another drop shaft 135 feet deep extending to the second vein.

The new Sirocco fan is guaranteed to deliver at present 50,000 c. f. m. at 3.6 inches w. g., requiring but 63 horse-power for operation. It is expected later on to handle 75,000 c. f. m. at 8.1 inches w. g.



2.—AN INTERESTING FAN INSTALLATION.

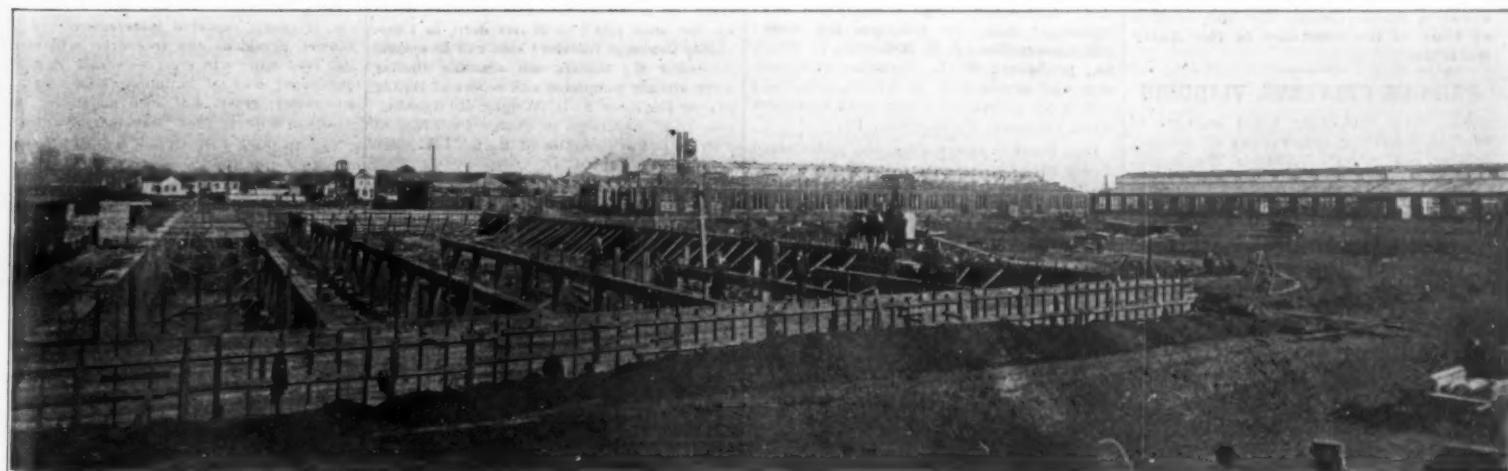
of a new fan, at which time the old fan was being dismantled.

The maximum capacity of the old fan shown on the right was 40,000 c. f. m. at 3.3 inches w. g., and was driven by a 125-horse-power engine. The large diameter and the larger amount of masonry neces-

sary for its installation will be noted as a familiar object around many shafts. The old fan discharged into a main downcast shaft 400 feet deep, being 4 feet 3 inches by 8 feet 9 inches at the smallest point.

The downcast leads into the first vein of coal.

"F. S. Dunn, the general manager, states that the new fan is producing excellent results beyond the guarantee or their



CONSTRUCTING THE B. F. AVERY & SONS PLOW AND AGRICULTURAL-IMPLEMENT PLANT AT LOUISVILLE.

feet wide by 336 feet long. There will be, in all, 11 buildings, all with concrete foundations and brick walls, and of practically fireproof construction, with automatic sprinklers and most modern fire-preventing and fire-fighting equipment. The buildings will cover a good part of the 35-acre tract

in other constructions. This saves brick work.

A curved tile with rounded ends is set in this groove and leans on boiler head, no angle iron or other support being required. As the relative position of boiler head is changed by heat action, this curved

tile, by becoming more or less perpendicular, reciprocates perfectly. These sections are 12 inches wide, and have rabbed edges to break joints. Accessibility of boiler tubes for cleaning, repairing, etc., is another advantage. By simply lifting the curved tile out of

expectations, and he is more than pleased with the installation. He further states that, owing to the small size of the Sirocco fan, the cost of installation was much less than a larger and lower speed fan would have been."

Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ADDRESS FULLY

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECT

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

The Daily Bulletin of the Manufacturers' Record is published every business day in the year for the purpose of giving the earliest possible news in regard to new industrial, railroad and financial enterprises organized in the South. It is invaluable to contractors, manufacturers, engineers and all others who want to get in touch at the earliest moment with new undertakings or the enlargement of established enterprises. The subscription price is \$25 a year. All advertising contracts in the Manufacturers' Record extending over a period of three months include a subscription for the length of time of the contract to the Daily Bulletin.

BRIDGES, CULVERTS, VIADUCTS

Ala., West End.—City voted issuance of \$3500 of bonds for construction of concrete bridges and culverts. Address The Mayor. (Lately noted.)

D. C., Washington.—Martin F. McNamara, 608 A St. S. E., Washington, has contract to construct bridge from Hume St. to Island; 100 feet long, 45 feet wide.

Fla., Tampa.—Hillsboro county will construct steel bridge across Hillsboro River; date of opening bids, December 7. Address County Commissioners. (See "Machinery Wanted.")

N. C., Winston-Salem.—J. S. Kuykendall, secretary Board of Trade, states that bridge on National Highway (recently noted) will probably be of steel construction; estimated cost, \$2500; definite plans not made.

S. C., Columbia.—Seaboard Air Line Railway will expend about \$500,000 in construction of proposed Lincoln-street viaduct, which will extend 4900 feet from Senate St. to point about 50 feet outside of city limits, where work will be continued with fill about 2500 feet long; clearance, 100 feet; superstructure will be of steel, requiring 5200 tons, and will cost about \$350,000; foundations of concrete, requiring 50 cars of cement and 5500 yards of concrete, and will cost about \$40,000; earth filling is estimated to cost \$75,000;

Alsop & Pierce, Newport News, Va., contractors for foundations, will soon begin work; Pennsylvania Steel Co., Philadelphia, Pa., has contract for superstructure; E. A. Frink, Portsmouth, Va., bridge engineer for entire system, prepared plans; J. B. McClain, Washington, Pa., will be resident supervising engineer.

Tex., Beeville.—Bee county will construct steel bridge over Aransas Creek; bids are invited; Dan Troy, County Clerk. (See "Machinery Wanted.")

Tex., Dallas.—Jack F. Witt, County Engineer, has mailed to selected engineers copy of specifications for Dallas-Oak Cliff viaduct, inviting plans and estimates of cost; date for closing competition is January 1, 1910; structure is to be of reinforced concrete; minimum width, 50 feet, to include roadway for highway traffic, double track for interurban cars and two sidewalks; vertical clearance for railways, 22 feet; rectangular clearance for Trinity River of 60 feet vertical from low water by 90 feet horizontal; minimum clearance for Lancaster Ave., 12 feet; conduits for total cross section of 20 feet square to be provided for gas and water pipes, telegraph and electric wiring; electric lighting along entire length; amount available, \$563,000. (Previously mentioned.)

Tex., Fort Worth.—Fort Worth Stockyards Co. will construct bridge across Marine Creek; structure to be of reinforced concrete and brick; two arches of 45 feet each; half-circle bottom of concrete. (See "Miscellaneous Structures.")

Texas.—Missouri, Oklahoma & Gulf Railway, J. J. Harrison, chief engineer, Calvin, Okla., awarded contract to Wisconsin Bridge & Iron Co., Milwaukee, Wis., to construct superstructure of bridge 1100 feet long to be built across Red River; bids for substructure will be opened December 1; Ira G. Hedrick, Keith & Perry Bldg., Kansas City, is consulting engineer.

Tex., New Braunfels.—Comal County Commissioners will construct low concrete bridge across Guadalupe River at Gruene's Crossing.

Va., Buckingham County.—Bids will be opened December 11 for construction of steel bridge over Slate River; P. St. J. Wilson, State Highway Commissioner, Richmond, Va. (See "Machinery Wanted.")

Va., Danville.—City is considering issuance of \$100,000 of bonds for construction of bridge and improving West Main and Worsham Sts. Address The Mayor.

CANNING AND PACKING PLANTS

Fla., Jacksonville.—Spawn Food Products Co. incorporated with \$25,000 capital stock; Abel F. Spawn, Fernandina, Fla., president; John J. McNamara, vice-president; Percy F. Vyle, secretary-treasurer, both of Jacksonville; will cultivate and can fruit, etc.

CLAYWORKING PLANTS

Ga., Augusta—Brick.—Electric City Brick Co. (recently reported incorporated with \$25,000 capital stock) will establish plant with daily capacity of 60,000 bricks; will erect buildings; plans for buildings not made; mill construction; J. H. McKenzie, 262 Broad St., president; W. L. Burnside, vice-president and secretary; J. E. Brown, treasurer; orders for machinery placed with Chambers Bros. Company, Philadelphia, Pa. (See "Machinery Wanted.")

Ga., Rome—Sewer Pipe, etc.—Standard Sewer Pipe Co. incorporated with \$30,000 capital stock by D. B. Hamilton, Jr., and C. C. Harper; purchased and will continue Morrison-Trammell Brick Co., manufacturing sewer pipe, tiling, hollowware, etc.; will expend \$10,000 on improvements; Mr. Hamilton to be general manager.

Ky., Louisville—Sewer Pipe, etc.—Louisville Sewer Pipe Co. incorporated with \$5000 capital stock by Robert E. Brandies, L. Frankel, F. B. Moss; offices, Lincoln Bank Building.

N. C., Greensboro—Plaster and Cement.—Guilford Plaster & Cement Co. will not at present rebuild plant reported burned; may rebuild next spring.

N. C., Hertford—Building Brick.—Builders' Brick Co. incorporated to manufacture building brick.

Tenn., Black Fox—Bricks.—Tennessee Refining Co., W. E. Ragsdale, manager, will install pressed-brick machinery for manufacturing white and enameled brick. (See "Mining.")

W. Va., Fairmont.—Hammond Fire Brick Co., recently reported to rebuild burned plant, will erect fireproof brick buildings; will install machinery to manufacture about 75,000 bricks daily.

COAL MINES AND COKE OVENS

Md., Cumberland.—Franklin Coal Co. incorporated with Michael P. Fahey, Westernport, Md., president and general manager; P. H. Brown, Frostburg, Md., vice-president; Dr. T. L. Wilson, Piedmont, W. Va., secretary-treasurer.

W. Va., Charleston.—Anchor Coal Co. incorporated with \$50,000 capital stock by W. D. Payne, J. M. Payne, Berkeley Minor, Jr., and others.

W. Va., Junior.—Miller Coal & Coke Co. incorporated with \$100,000 capital stock by J. W. S. Miller of Junior; J. P. K. Miller, Carrie M. Miller, Scottdale, Pa.; Arthur R. Miller, Councillsville, Pa.

CONCRETE AND CEMENT PLANTS

D. C., Washington.—Southern Concrete Products Co. incorporated with \$250,000 capital stock by William A. Kennedy, district manager General Fireproofing Co., 724 14th St. N. W.; Charles H. Galliher, 812 North Carolina Ave. S. E.; Clarence T. Kingsbury, 3422 R St. N. W., and others.

Tex., Marlin.—Cherry & Hollers reported as to establish plant for manufacture of building blocks.

Va., Norfolk.—Norfolk Portland Cement Corporation, R. E. Griffith, president, 603 Pennsylvania Bldg., 15th and Chestnut Sts., Philadelphia, Pa., awarded contracts for construction of Norfolk plant; will erect 225x50-foot building of steel, at cost of about \$150,000, and install cement machinery, boilers, engines, etc., to cost about \$500,000; will have daily output of 2500 barrels Portland cement; John Greenall, Allentown, Pa., is constructing engineer. (Organization of company and other details heretofore reported; branch of American Cement Co. of Philadelphia.)

COTTON COMPRESSES AND GINS

Ala., Paint Rock.—Butler & Rousseau contemplate installation of 3-70-saw gin in spring to replace plant recently noted burned. (See "Machinery Wanted.")

Ark., Morrilton.—Morrilton Cotton Oil Co. will erect cotton gin; brick; near fireproof.

Miss., Gulfport.—Gulfport Cotton Oil, Fertilizer & Manufacturing Co. reported to award contract within few days for erection of proposed \$40,000 building; N. P. Pratt, architect, Atlanta, Ga.

COTTONSEED-OIL MILLS

Ga., Seaboard.—Vidalia Cotton Oil Mill Co., Vidalia, Ga., will in spring rebuild cotton-oil mill at Seaboard; size not decided. (Recently reported burned.)

DRAINAGE AND IRRIGATION SYSTEMS

Fla., Tallahassee.—Trustees Internal Improvement Fund of Florida, Gov. A. W. Gilchrist, chairman, are arranging for construction of 300 linear miles of canal, 40 to 100 feet wide and 6 to 10 feet deep, in Everglades Drainage District; bids will be opened December 22; bidders can examine similar work already completed and report of United States Engineer J. O. Wright of Washington, D. C.; engineer in charge for State of Florida is P. F. Jenkins of Miami, Fla. (See "Machinery Wanted.")

Ia., Oberlin.—Oberlin Canal Co. incorporated with \$75,000 capital stock to irrigate Oberlin prairie, containing about 6000 acres; plan is to draw water from Calcasieu River and convey it by broad canal for 22 miles to cultivable land; pumping plant will be installed. G. W. Carlick is president of company; Frank Shuttles, engineer, first vice-president, and will have charge of construction work; John R. Lyles, second vice-president; Anthony Cole, secretary-treasurer.

Miss., Natchez.—Farrar C. Martin and Dr. D. Sessions will install irrigation and pumping plant on Waubuse Plantation, which will be sufficient to supply water to Riffle Point, Waubuse and Grasmere plantations for about 2000 acres of rice; canal will be about five miles long.

ELECTRIC-LIGHT AND POWER PLANTS

Ala., Mobile.—Mobile Street Railway will make improvements to power plant, expending about \$100,000; part of machinery has been ordered; Stone & Webster, Boston, Mass., engineers in charge.

Ark., Cherry Valley.—Clampit Gin & Mill Co. will install steam-power plant to operate condensing.

Fla., Lakeland.—City voted issuance of \$6000 of bonds for improvement of electric-light plant; John S. Edwards, Mayor. (Lately mentioned.)

Ky., Paris.—Paris Electric Light Co. will make extensions to lighting plant; to include boilers, engines, generators, feed-water heaters, pumps, etc.; cost \$20,000; will award contract December 15; S. L. Allen, purchasing agent and engineer in charge. (Recently noted.)

La., Plaquemine.—J. H. Pugh purchased Plaquemine Electric Light & Power Co.'s franchise and property and will organize new company.

La., New Orleans.—Consumers' Electric Co. contemplates reorganizing with increased capitalization of \$1,000,000 and enlarging plant.

Md., Fort Washington.—Bids will be opened December 27 for construction of electric-lighting system. Address Capt. H. L. Pettus, constructing quartermaster, Takoma Substation, Washington, D. C. (See "Machinery Wanted.")

Mo., Jefferson City.—Big Naunga Power Co. (recently reported incorporated under Buffalo, Mo.) will establish water-power-electrical plant at Jefferson City; from 1600 to 2400 horse-power; will construct dam at cost of \$35,000 to \$45,000; I. Phillips, Buffalo, president; A. N. Martin, secretary; W. C. Clayton, treasurer.

Okl., Enid.—L. J. Downey petitioned City Council for franchise to construct and operate electric-power system.

Tenn., Bristol.—Bristol Gas & Electric Co. is understood to have sold control (at \$450,000) to New York capitalists, who will undertake construction of \$250,000 water-power-electrical plant for augmenting present facilities and providing for future needs. (Lately mentioned.)

Tenn., Henning.—J. R. Gregory, J. B. Alston and J. W. Wilson will build 30-kilowatt electric-light plant and 10-ton ice plant; details not determined.

Tex., Calvert.—Calvert Water, Ice & Electric Light Co., J. P. Casimir, president, recently noted to increase capital stock, will operate plant previously reported; operation in about 60 days; has completed building and installed machinery; Louis Beck, 45 East 42d St., New York, engineer in charge.

Tex., Bellville.—Bellville Promoting Co. organized by C. F. Hellmuth and others to promote establishment of electric-light plant, etc., lately mentioned; about 700 lights. (See "Miscellaneous Manufacturing plants" and "Machinery Wanted.")

Tex., Terrell.—City voted issuance of \$10,000 of bonds to install additional machinery in electric-light plant and extend water system. Address The Mayor. (Lately noted.)

Tex., Winters.—Winters Mill & Elevator Co. (recently reported incorporated), J. H. Burnet, president and treasurer, will establish feed mill; will erect 30x60 and 20x80-foot buildings; cost of buildings, \$3500; cost of machinery, \$4000; will open machinery proposals in 30 days. (See "Machinery Wanted.")

Va., Bedford City.—Town Council has ordered election for December 29 to vote on issuing bonds for \$35,000 to construct water-power-electrical plant on James River. Address The Mayor.

W. Va., Kimball.—J. S. Shaw, Algoma, W. Va., has completed necessary surveys and L. Kaufman of Northfork, W. Va., will begin at once erection of power-house and other buildings necessary for construction of proposed electric-light plant and water-works; estimated cost, exclusive of site, \$100,000.

W. Va., Romney.—Boston Water Development Co., Richard F. Barrey, president, is reported as to build water-power-electrical plant.

FERTILIZER FACTORIES

Ga., Savannah.—Southern Fertilizer & Chemical Co. will triple capacity of fertilizer plant; will erect building 150x400 feet; mill construction; five stories; W. K. Nix, construction engineer of Pratt Engineering & Machine Co., Atlanta, Ga., in charge of construction.

Miss., Gulfport.—Gulfport Cotton Oil, Fertilizer & Manufacturing Co., E. Van Winkle, president, is planning to rebuild fertilizer factory recently reported burned; loss \$75,000.

Va., Berkley, Station Norfolk.—Smith & Jones, Philadelphia, Pa., have contract for erection of guano factory; 285x675 feet.

FLOUR, FEED AND MEAL MILLS

Ark., Fort Smith.—Ballentine Milling Co. incorporated with \$25,000 capital stock by E. S. Ballentine, J. H. Ballentine and J. M. Langston, Jr.

FOUNDRY AND MACHINE PLANTS

Mo., St. Louis—Foundry.—J. C. Kupferle Foundry Co. purchased site 80x150 feet and will erect foundry building to cost \$100,000.

Mo., St. Louis—Rotary Engines.—Elby Rotary Engine Co. (recently reported incorporated), J. H. Tolley, president and general manager, 321 Liggett Bldg., proposes to have engines built by contract; contemplates later establishment of plants in various cities.

GAS AND OIL DEVELOPMENTS

Tex., Houston.—Producers' Oil Co., Walter B. Sharp, president, will increase capital stock from \$1,500,000 to \$3,000,000 and make general improvements to plant.

W. Va., Buckhannon.—Buckhannon Relief Oil & Gas Co. contracted with J. W. Agnew to drill two additional wells in Stone coal field; if sufficient gas is found, will pipe same to Buckhannon, eight miles distant.

W. Va., Lewis County.—Mountaineer Oil & Gas Co. incorporated with \$200,000 capital stock by James H. Field, Uniontown, Pa.; A. B. Post, Morgantown, W. Va.; B. H. Temple, Parkersburg, W. Va., and W. D. Wanless, Clarksburg, W. Va., and others.

W. Va., Wayne.—Belvard Oil & Gas Co., organized with \$150,000 capital stock, will develop oil and gas on 6000 acres of land in Stonewall district, Wayne county; work to begin promptly; has placed contracts with Pennsylvania operators for drilling test wells; H. H. Johns, Crafton, Pa., president; B. J. Pritchard, vice-president and treasurer; Guy E. Campbell, Crafton, Pa., secretary; Mr. Pritchard in charge of Wayne office and development work.

ICE AND COLD-STORAGE PLANTS

Ga., Savannah.—W. D. Champion, Springfield Dairy Co., has purchased refrigerating and ice-manufacturing machinery for plant recently mentioned; 10-ton ice plant; will erect building by day labor.

La., Lake Charles.—Lake Charles Mercantile Co. will install cold-storage plant at Goosport.

N. C., New Bern.—New Bern Ice Co. will install 25-ton compressor and tank and increase daily capacity from 37 tons to more than 60 tons.

N. C., Newbern.—People's Ice Co. incorporated with \$50,000 capital stock by Allie Cook, E. K. Bishop and others.

Tenn., Henning.—J. R. Gregory, J. B. Alston and J. W. Wilson will build 10-ton ice plant and 30-kilowatt electric-light plant; details not determined.

Tenn., Nashville.—Tennessee Packing & Stock Yards Co. is planning to erect ice and cold-storage plant; six stories; reinforced concrete and steel; 90x200 feet; 108,000 square feet storage space; each floor connected with packing plant by covered passageways with power transmission; capacity of ice plant, 400 tons daily; will install two new ice machines; cost of building, \$150,000.

Tex., Calvert.—Calvert Water, Ice & Electric Co., J. P. Casimir, president, recently noted to increase capital stock, will have plant in operation in about 60 days. (See "Electric-light and Power Plants.")

Tex., Bellville.—Bellville Promoting Co. organized by C. F. Helmuth and others to propose establishment of ice plant; recently mentioned; to have capacity of 10, 15 or 20 tons. (See "Miscellaneous Manufacturing Plants" and "Machinery Wanted.")

Tex., Mexia.—Mexia Ice & Refrigerating Co. increased capital stock from \$40,000 to \$80,000 and will make improvements to plant.

IRON AND STEEL PLANTS

Ala., Bessemer.—Bessemer Rolling Mills has, it is reported, completed foundation for proposed addition to rolling mill and will soon proceed with construction work; cost \$75,000.

Ga., Rome—Iron Furnace.—Silver Creek Furnace Co., H. H. Shackelford, general manager, will expend from \$40,000 to \$50,000 in remodeling furnace; proposed to install 350-horse-power boiler, enlarge stack one foot, install heavier plates and bronze coolers and enlarge casting shed; present capacity is between 65 and 75 tons daily, and improvements

will increase it to about 100 tons daily. (Recently mentioned.)

Va., Glen Wilton—Iron Furnace.—Princess Furnace Co., Wm. W. Hearne, president, Real Estate Trust Bldg., Philadelphia, Pa., has entirely dismantled stack at Glen Wilton; is erecting on same site another stack, capacity 100 tons daily, which will add double output; erecting additional fire-brick stove 16 feet diameter, 70 feet high; is installing two 250-horse-power Babcock & Wilcox boilers; Ladd & Baker, Philadelphia, engineers. (Recently noted.)

LAND DEVELOPMENTS

Fla., Bulow.—Land Development Co. (recently reported organized by C. F. Hopkins of St. Augustine, Fla., and Chas. H. Carter, 309 Liggett Bldg., St. Louis, Mo.) will develop 580 acres, called "Seminole Grove," near Bulow; 120 acres wet land to be reserved at present; remainder to be sold in 5 and 10-acre lots; some planting in grapefruit and oranges contemplated.

Fla., Citrus—Fruit-growing, etc.—Pineapple Orange Co., John R. Williams, secretary, will develop 500 acres in oranges and grapefruit and 1000 acres in farming lands; will use washers and improved farming implements; contemplates erection of cane mill. (Recently noted incorporated with \$200,000 capital stock.)

Fla., Tampa.—Tampa Bay Land Co., Samuel Boeckhardt, president (recently noted to purchase 14,000-acre Swann-Holtsinger tract), is arranging for proposed improvements and establishment of town to be known as South Tampa; will devote 3000 acres to townsite purposes, laying off 50-foot streets and 60-foot avenues, etc., probably expending \$5000 for this purpose; will subdivide remaining 11,000 acres into 10-acre tracts for farming and suburban homes; will also make improvements to water front; H. R. Knight, company's permanent engineer, in charge of survey and other engineering.

Ga., Atlanta.—Mutual Realty Co. incorporated with \$50,000 capital stock by M. E. Walker, A. F. Walker and C. E. Glenn.

Ga., Savannah.—John M. Cooper Land Co. incorporated with \$10,000 capital stock by T. L. Wally, F. W. Clarke, C. B. Clarke ad H. W. Butler, Jr.

Ga., Savannah.—Edgar W. Foster, New York, purchased (for \$15,000) 12 acres of land and will develop into residential section; will cut through three 50-foot streets, divide into building lots, etc.

Ga., Wayne County.—Company organized by C. J. Haden (president), Joseph A. McCord and F. M. Farley, all of Atlanta, Ga., and others; purchased 22,000 acres of land in Wayne county and will plat, improve and colonize.

Mo., Joplin.—Pike Land Co. incorporated with \$250,000 capital stock by L. Bertram Pike, W. H. Matin, A. J. Thurman and others.

N. C., Greensboro.—Piedmont Land & Improvement Co. incorporated with \$200,000 capital stock; W. P. Bynum, Jr., president; W. M. Perdue, vice-president; M. W. Sterne, secretary; J. T. Witherspoon, treasurer; G. M. Parker, manager.

N. C., Watha.—Watha Improvement Co. incorporated with \$10,000 capital stock by A. R. Parson and others.

Okl., Elk City.—Granite Sulphur Springs Improvement & Development Co. (recently reported incorporated with \$10,000 capital stock) will improve and develop land; no engineer yet in charge; will probably not do construction work for three months; contemplates making driveways, setting trees and shrubbery, developing mineral springs and wells; later may drill oil or gas test wells.

Okl., Oklahoma City.—E. G. Leach, 218½ West Main St., is promoting development of several hundred acres of land near Oklahoma City; will cultivate vegetables, fruit, berries, etc., and establish cannery and vinegar-manufacturing plant; will erect station building, establish school and construct side-track.

Okl., Oklahoma City.—Citizens' Realty Co. incorporated with \$10,000 capital stock by W. F. Harr, J. F. Winans, L. E. Patterson and others.

S. C., Charleston.—Imperial Real Estate Co. incorporated with \$40,000 capital stock; J. T. Hyde, president and treasurer; J. S. Pinkussohn, vice-president.

S. C., Georgetown.—Georgetown Development Co. organized with \$30,000 capital stock; William D. Morgan, president; E. L. Loyd, vice-president; E. V. Emerson, secretary-treasurer; will divide 6000 acres of land into small farms.

S. C., Greenville.—Mills Land & Development Co. incorporated with \$12,000 capital stock by L. A. Mills and H. H. Balles.

Tenn., Memphis.—Hurling Realty Co. incorporated with \$150,000 capital stock by Henry Loeb, Henry Hall, Joseph P. Iselle and others.

Tex., Dallas.—Mt. Auburn Development Co. will develop 175 acres of land adjoining eastern city limit; will construct streets 70 feet wide, with 12-foot walks; will at present develop 400 lots with 60 to 70-foot frontage and 150-foot depth; four principal streets to be macadamized and trees planted; cost of these improvements approximately \$40,000; capital stock \$140,000; president of company, T. L. Clark, Denison, Tex.; vice-president, E. L. Lancaster; treasurer, W. O. Siler; secretary, J. C. Hill. (Recently mentioned.)

Tex., Mission.—Mission Land Improvement Co. incorporated with \$300,000 capital stock by John J. Conway, James W. Hoyt and W. E. Pope.

Va., Charlottesville.—Park Place Improvement Co. incorporated with \$10,000 capital stock; E. G. Haden, president; J. W. Fishburne, vice-president; J. S. White, secretary-treasurer.

Va., Norfolk.—Winola Realty Corporation incorporated with \$5000 capital stock; George Lindsay, president; G. F. Palmer, vice-president; George Pilcher, secretary-treasurer.

Va., Norfolk.—Coleman Development Co. incorporated with \$25,000 capital stock; C. T. Mosby, president; J. D. Clayton, vice-president; H. T. Hedrick, secretary-treasurer.

W. Va., Williamson.—Winifred Land Co. incorporated with \$25,000 capital stock by C. H. King, D. M. Cloyd, Dublin, Va.; Wade H. Bronson, Williamson, and others.

LUMBER-MANUFACTURING PLANTS

Ala., Birmingham.—S. H. Cord Lumber Co. incorporated with \$3000 capital stock; S. H. Cord, president and treasurer; W. J. Conniff, secretary.

Ala., Talladega.—Jackson-Tinney Lumber Co. will construct proposed planing mill and drykiln.

Ark., Stuttgart.—Bayou Meto Lumber Co. incorporated with \$10,000 capital stock by Charles Odell, Arnold Kleiner, William Dickinson and Peter Staab.

La., Lake Charles.—Peavey & Burns Lumber Co., Mansfield, La., purchased (for about \$1,000,000) 20,000 acres of timber land near Lake Charles and will establish double-band and circular mill with capacity of 100,000 feet of lumber daily.

Miss., Bonhomie (not a postoffice).—Tatum Lumber Co., Hattiesburg, Miss., will repair brick building at Bonhomie recently reported burned; daily capacity of plant, 20,000 feet long-leaf yellow pine. (See "Machinery Wanted.")

Miss., Marion County.—International Harvester Co., Chicago, Ill. (at \$1,500,000) is reported as having purchased yellow-pine stumpage holdings (50,000 acres) from E. B. Lowe and S. B. Lowe of Grand Rapids, Mich.

N. C., Hampstead.—Duck Lake Lumber Co., recently noted incorporated (under Rocky Mount, N. C.) with \$75,000 capital stock, will continue operation of equipped plant at Hampstead; capacity 15,000 feet daily; office, Rocky Mount; W. L. Groom, president; S. T. Anderson, secretary-treasurer.

N. C., Roxboro.—J. C. Pass and others will rebuild recently-burned planing mill; in connection will build electric-light plant for town lighting and operation of mill. (See "Machinery Wanted.")

Tex., Bridgeport.—Bridgeport Lumber Co. incorporated with \$10,000 capital stock by H. G. Leonard, D. M. Wilson and D. W. Weaver.

Va., Manchester.—Bedford Lumber Co. incorporated with \$15,000 capital stock; J. W. Moore, president; J. P. Sampson, secretary-treasurer.

Va., New Glasgow.—American Box Co., Lynchburg, Va., purchased 500 acres of timber land near New Glasgow; will cut the timber and ship raw material to factory in Lynchburg, which plant will be enlarged.

Va., Pulaski.—Alta Lumber Co. organized by F. O. Havener, E. J. McGee, both of Parkersburg, W. Va., and Stringer Boggess, Clarksburg, W. Va.; purchased 9000 acres of timber land and will establish plant to develop; E. J. McGee will be manager and Vere Havener superintendent.

METAL-WORKING PLANTS

Ala., Montgomery.—Fertilizer Distributors, Winfrey & Morgan, Louisville, Ky., contemplates establishment of plant for manufacturing fertilizer distributors.

Fla., Tampa.—Woven-wire Fences.—C. M. Smith, Akron, Ohio, contemplates establishment of woven-wire fence plant.

Mo., Kansas City—Heating Furnaces.—A. Holtman will erect store and factory building; three stories; 124x108 feet; cost \$30,000.

Miss., Columbus.—Plows.—F. D. Lundigan, Monroe, Ohio, has secured option from C. R. Smith on New South Plow Works and will probably take over and operate plant.

Mo., Kansas City.—Steel Hose and Chemical Wagon.—George C. Hale, inventor, will establish plant for manufacturing patented steel combination hose and chemical wagon.

Mo., Kansas City—Steel Scrapers, etc.—Kansas City Steel Scraper Manufacturing Co., Edwin M. Miller, president, 701-706 Heist Bldg., purchased 30 acres of ground at Steetlon, Kansas City; will establish plant recently noted under "Foundry and Machine Shops"; will erect II buildings of fireproof construction; steel frames; brick walls; metal skylights; concrete floors; estimated approximate cost of buildings and machinery, \$750,000; date not yet set for opening machinery or material proposals; daily capacity, five carloads and output of car shops; with buildings to be considered first, company not yet in market for supplies.

Okla., Enid—Steel Posts, etc.—American Angle Steel Post Co., Box 541 (recently reported incorporated under "Foundry and Machine Plants") with \$50,000 capital stock, will establish offices at Enid; John C. Moore, president; J. S. Kenefick, secretary; James V. Harbison, treasurer; manufacturing will be punching at rolling mills, Cambridge, Ohio; also probably at Birmingham, Ala., and Pueblo, Col., with prospective similar course at other places.

Okla., Oklahoma City—Safes.—Fonger Safe Co. will erect building and equip for manufacturing fireproof safes, bank vaults, vault fronts, etc.; cost \$40,000.

Okla., Tulsa—Tanks.—Maloney Tank Manufacturing Co. incorporated with \$25,000 capital stock by J. W. Calkins, Harry Ross, Tulsa, and O. W. Maloney, Independence, Kans.

MINING

Ala., Attalla—Iron.—Stewart-Durfee Mining Co. (recently noted purchasing mining plant from D. P. Montague, Chattanooga, Tenn.) will increase monthly capacity from 4000 tons of self-fluxing red ore to 6000 or 7000 tons.

Okla., Lafayette—Iron.—Pigeon Mountain Iron Co., J. C. Haas, president, 732 Candler Bldg., Atlanta, Ga., will develop 3500 acres red-ore land in Walker county; will build spur tracks; output at start, 200 tons per day, to be increased; M. T. Singleton, chief engineer and general superintendent; recently noted under Atlanta. (See "Machinery Wanted.")

Ky., Crittenden—Zinc.—J. M. Persons is interested in development of zinc deposits in Crittenden county.

Mo., Joplin—Zinc.—Golden Buck Zinc Co. incorporated with \$100,000 capital stock by Dudley H. Norris, Frank R. Wilcox and J. C. Ammerman.

N. C., Southern Pines—Gold.—J. P. Steinbach, Professional Bldg., Baltimore, Md., awarded contract to R. W. Brown, Southern Pines, for installation of hydraulic system to supply water for washing gravel in connection with gold mining.

Okla., Muskogee—Delaware Mining Co. incorporated with \$10,000 capital stock by R. H. Beard, Robert J. Boone and Garfield Johnson.

Tenn., Black Fox—Silica and Tripoli.—Tennessee Refining Co., W. E. Ragsdale, manager, has plant mentioned in August now ready for operation; is placing electric plant for lighting mines, etc.; refining building is 150x50 feet; will install pressed-brick machinery for manufacture of white and enameled brick; capacity, 10,000 daily. (Recently noted as "Black Fox Silica Mining Co.", to expend \$50,000 in development and extension.)

Tenn., Centerville—Iron.—J. J. Gray, V. E. Schwab, H. and T. H. Graham purchased Pinewood property (2700 acres) and propose to develop iron deposits; will construct spur track from Centerville branch of Nashville, Chattanooga and St. Louis Railway.

Tenn., Crandall—Iron.—Crandall Tennessee Iron & Steel Co. organized with \$100,000 capital stock by Benjamin F. Fry, Abingdon, Va., and others, to develop iron deposits.

Tex., Belton—Stone.—Lantry Sharpe Quarry Co. will install new crusher and machinery to increase capacity.

Tex., Waco—Sand and Gravel.—White Rock Sand & Gravel Co. (recently reported incorporated with \$15,000 capital stock) has elected Al A. Edwards president, D. H. Orand vice-president, Dan Wise secretary-treasurer, W. W. Hyde general manager. (See "Machinery Wanted.")

Va., Fort Blackmore—Copper, Gold, Silver, etc.—Appalachian Mining & Smelting Co., represented by Franklin Allison, will erect smelter and develop copper, silver, gold and other minerals in Scott county.

Va., Petersburg—Mica.—Mecklenburg Mica & Mining Co., T. B. Thacker, president (recently reported incorporated with \$50,000 capital stock), will make a specialty of sheet and electrical mica; Chas. E. Smith, vice-president; Richard F. Pryor, treasurer; J. P. Thacker, secretary; M. Lewis Bruce, mining engineer.

MISCELLANEOUS CONSTRUCTION WORK

Ga., Savannah—Subway.—City and Atlantic Coast Line Railroad, E. B. Pleasants, chief engineer, Wilmington, N. C., are arranging for construction of proposed Henry-street subway; work to begin about January 1.

La., Alexandria—Concrete Wall.—Wm. P. Carmichael Company, Williamsport, Ind. (branch office, Fullerton Bldg., St. Louis, Mo.), has contracted for all machinery needed for construction of work at Red River bridge, recently noted; contract awarded to the Carmichael Company by St. Louis, Iron Mountain & Southern Railway, whose principal assistant engineer, R. F. Ford, has charge of work; construction consists of reinforced concrete wall 75 feet long, 46 feet high, to surmount present wooden fender.

La., Baton Rouge—Levees.—Bids will be opened December 2 for construction of Celestine Moreau levee, contents 11,500 cubic yards, and J. Bettevy levee, contents 8000 cubic yards; Frank M. Kerr, chief State engineer, Cotton Exchange Bldg., New Orleans, La. (See "Machinery Wanted.")

La., New Orleans—Jetties.—Christie & Lowe of New Orleans, contractors, will soon begin proposed extension of east jetties at mouth of Mississippi River; work will be done with mattresses and small stones; contract price, \$198,000. Colonel Beach recommended bid of Bowers Southern Dredging Co., Galveston, Tex., for dredging around bar at Southwest Pass; bid is between \$68,000 and \$83,000.

La., New Orleans—Levee.—Orleans Levee Board awarded contract to Hampton Reynolds, 429 Chestnut St., New Orleans, for completion of levee on west bank of New Basin Canal from Metairie road to West End; 34,500 cubic yards of levee work; cost 74 cents per cubic yard, or \$25,530; Jules C. Koenig, president Board of Levee Commissioners. (Recently mentioned.)

Mo., Scott County—Levee.—Bids for construction of eight miles of levee in Scott county (recently voted) will be received and contract awarded on December 31 (extended date); about 175,000 cubic yards; A. J. Wheeler, Charleston, Mo., engineer; N. B. Kavanaugh, secretary Levee Board, Charleston, Mo. (See "Machinery Wanted.")

N. C., Wilmington—Pier.—Wrightsville Beach Hotel Co., E. L. Hinton, manager, has plans by and awarded contract to Jos. F. Lettner for construction of 600-foot steel pier at Wrightsville Beach recently noted; material contracted for. (See "Hotels.")

Tex., Galveston—Beach Improvements.—City voted issuance of \$225,000 of bonds to pay for its share of cost of various improvements planned for beach front: A. T. Dickey, City Engineer. (These betterments recently detailed.)

Va., Portsmouth—Seawall.—Navy-yard contract, recently noted awarded to Alsop & Peirce, Room 18 First National Bank Bldg., Newport News, Va., includes seawall and dredging; reinforced-concrete sheet piles 18x24 inches by 55 feet long; timber piles; timber; contract amount \$65,000; work not to begin before April, 1910. (See "Machinery Wanted.")

Va., Warrenton—Dam.—City will repair dam damaged during recent fire. Address The Mayor.

MISCELLANEOUS ENTERPRISES

Ala., Birmingham—Crematory and Paving Plants.—City will establish crematory and paving plants recently mentioned; crematory to have daily capacity of 100 tons; paving plant capacity, 1000 yards per day; estimates asked; Frank P. O'Brien, Mayor. (See "Machinery Wanted.")

Ala., Birmingham—Automobiles and Supplies.—Pullman Auto & Supply Co. incorporated with \$5500 capital stock; W. B. Morgan, president; F. D. Dimmick, vice-president; C. B. Froment, secretary; H. C. Chapman, general manager.

D. C., Washington—Contracting.—Clarke & Winston Company incorporated with \$15,000 capital stock; L. A. Clarke, 1359 Euclid St.

N. W., president; A. L. Clarke, 133 C St. S. E., secretary; M. C. Clarke, 218 11th St. S. W., secretary.

D. C., Washington—Illuminating.—Night Games Corporation incorporated with \$300,000 capital stock; Pickens Neagle, 1467 Irving St. N. W., president; B. A. Allen, 1901 4th St. N. W., vice-president; will develop patented process for illuminating baseball grounds at night.

Fla., Pensacola—Race Track.—W. H. Bickers is promoting construction of race track.

Fla., Pensacola—Garage.—Leslie E. Brooks and Herron D'Alemberte awarded contract to Fulghum & Sons, Pensacola, for erection of garage; two stories; brick.

Fla., St. Petersburg—Shipyards.—Pressman-Caldwell Company incorporated with \$10,000 capital stock; C. B. Caldwell, president; J. G. Foley, vice-president; George Pressman, secretary-treasurer; will establish shipyards; will construct steam ways, larger one on one side and smaller one on other side equipped with cradles; will also establish shop and iron and brass foundry to manufacture castings for engines and other equipment; will also manufacture furniture.

Fla., Atlanta—Publishing.—American Citizen incorporated by John Harmon, Albert A. Thomas and Lovie J. Royal.

Fla., Columbus—Bottling.—Nova-Kola Bottling Co. incorporated with \$20,000 capital stock by H. Grader, C. W. Moore, J. W. McDaniel and Henry Gann.

Fla., Columbus—Taxicabs.—City Taxicab Co. incorporated with \$10,000 capital stock by R. C. Jordan, Marshall Morton and L. F. Schenck.

Fla., Rome—Plumbing.—Powers Plumbing Co. incorporated by H. A. Powers, S. J. Powers and W. J. Nunnally.

Fla., Savannah—Mercantile.—Marcus & Co. incorporated with \$20,000 capital stock by William Marcus and Henry Raskin.

Ky., Franklin—Garage.—Enterprise Machine & Garage Co. incorporated with \$10,000 capital stock by W. H. Winfield, H. Mullinx, J. O. Turner and others.

Ky., Lexington—Air-drying Plant.—Burley Tobacco & Insurance Co. awarded contract to Hendricks, Moore & Young, Lexington, for erection of proposed air-drying plant; 80x128 feet; double floor; shed 64x12 feet.

La., New Orleans—Coffee Roasting.—F. C. Marshall, Chicago, Ill., will establish coffee-roasting plant.

La., New Orleans—Garage.—L. H. Fairchild has plans by Martin Shepherd, New Orleans, for garage; site 150x115 feet; one story; cost \$50,000.

Md., Baltimore—Publishing.—Frank A. Munsey, The News, Calvert and Fayette Sts., has had plans prepared for improvements; is negotiating for site on Fayette St. with frontage of 85 feet, adjoining present plant.

Md., Baltimore—Transportation.—Queens-town-Love Point Transportation Development Co. organized with John F. Williams, Galther Estate Bldg., president; will establish steamboat line between Baltimore, Love Point and Queenstown, Md.; will construct piers and wharves and make other necessary improvements.

Miss., Collins—Hardware.—Collins Hardware Co. incorporated with \$10,000 capital stock by P. A. Johns, S. W. Alexander and others.

Miss., Columbus—Automobiles, etc.—Columbus Auto & Electrical Co. incorporated with \$250,000 capital stock, R. Gordon Finney, president, purchased Analostan Island and will expend between \$350,000 and \$350,000 for establishment of summer resort.

Miss., Laurel—Publishing.—W. W. Beatty will erect building to be leased by Laurel Chronicle for printing plant, etc.; floor space 21x30 feet.

N. C., New.—Pegram Grain & Lumber Co. incorporated with \$125,000 capital stock by W. S. Lee, Frank Armfield and E. L. Pegram, all of Stanley, N. C.

N. C., Wallace—Dudlin Grocery Co. incorporated with \$50,000 capital stock by W. B. Cooper, Wilmington, N. C.; W. M. Carr, Wallace, and others.

Okla., Guthrie—Automobiles.—White Auto Co. incorporated with \$100,000 capital stock by R. Kennedy, William Kennedy, J. R. Clover and others.

Okla., Lawton—Pleasure Resort.—Lawton & Fort Sill Electric Railway Co. purchased site in Medicine Park for \$50,000 and proposes development of pleasure resort.

Okla., Oklahoma City—Construction.—Acme Construction Co. incorporated with \$25,000 capital stock by E. P. Speare, C. L. Baskett and J. M. Smith.

S. C., Gaffney—Garage.—Z. A. Robertson

will erect garage; plant in charge of Daniel Foltz, New York.

Tenn., Chattanooga—Hardware, etc.—James Supply Co. has changed name to James Supply & Hardware Co. and increased capital stock from \$100,000 to \$225,000; recently purchased Fritts Hardware Co. and will make improvements.

Tenn., Memphis—Construction.—Rodes-McDowell Construction Co. incorporated with \$10,000 capital stock by J. E. Rodes, J. A. McDowell, P. M. Estes and others.

Tenn., Memphis—Printing.—Hays Printing Co. incorporated by W. A. Hays, R. M. Henry, C. A. Moore and others.

Tenn., Memphis—Automobile Course.—C. C. Hanson and J. B. Yorke are interested in construction and maintenance of two mile automobile course; cost between \$150,000 and \$200,000.

Tex., Brenham—Automobiles.—Brenham Automobile Co. incorporated with \$5000 capital stock by T. J. Pier, C. G. Botts, H. C. Miesner and J. H. Beaumer.

Tex., Brady—Automobiles.—Brady Auto Co. incorporated with \$20,000 capital stock by W. D. Crothers, D. F. Savage and J. E. Thompson.

Tex., Dallas—Mercantile.—Adkins-Mayfield-James Company incorporated with \$75,000 capital stock by M. G. Mayfield, A. Cecil Adkins and William W. James.

Tex., Dallas—Engineering.—Western Engineering Co. incorporated with \$25,000 capital stock by Arthur A. Vardell, Jerome B. Dale, George T. Baldwin and Robert Kaye.

Tex., Dallas—Grain.—Lawther Grain Co. incorporated with \$32,000 capital stock by Robert R. Lawther, Joseph Lawther and William J. Lawther.

Tex., Donna—Grain, etc.—Donna Grain, Ice & Implement Co. incorporated with \$4000 capital stock by B. H. Hooks, R. P. Boyce and J. Boardman.

Tex., Fort Worth—Park Improvements.—Board of Park Commissioners propose voting on \$200,000 bond issue to construct neighborhood parks.

Tex., Houston—Garage.—Auto & Motor Boat Co. has plans by A. De Lisle, Houston, for garage; two stories; brick; cost \$10,000.

Tex., Houston—Texas Publishing Co. incorporated with \$5000 capital stock by R. H. Schmidt, Gary Haynes and E. L. Crocker.

Tex., Houston—Automobiles.—Magnolia Motor Co. incorporated with \$10,000 capital stock by James Autrey, W. B. Sharp, G. R. Spotts and others.

Tex., Quanah—Garage.—Gus Gober reported to erect automobile garage.

Tex., Terrell—Steam Laundry.—J. P. Galnes will establish steam laundry.

Tex., Texas City—Grain Elevator.—Texas City Transportation Co., A. B. Wolvin, Duluth, Minn., president (recently noted to erect grain elevator), will practically duplicate in design and construction an elevator at head of Lake Superior; contemplates awarding construction contract to Duluth contractors, in which case no further bids will be needed on material, machinery and equipment; building to be of steel and hollow tile construction; storage capacity, 500,000 bushels; receiving capacity, 5000 bushels per hour; ship delivery, 20,000 bushels per hour.

Tex., Rosslyn—Summer Resort.—Analostan Development Co. (recently reported incorporated with \$250,000 capital stock), R. Gordon Finney, president, purchased Analostan Island and will expend between \$350,000 and \$350,000 for establishment of summer resort. (See "Machinery Wanted.")

Tex., Winchester—Publishing.—Midget Publishing Co. incorporated with \$25,000 capital stock; W. H. Frederick, president and treasurer, Winchester; F. J. Brown, vice-president and secretary, New York.

W. Va., Gleason—Groceries, etc.—Gleason Supply Co. incorporated with \$5000 capital stock by Morton Stevens and Edith Miller, both of Philadelphia, Pa.; W. E. Hubbs of Dodson, Md., and others.

W. Va., Mt. Hope—Land.—Vaner Company incorporated with \$25,000 capital stock by J. F. Garnett, P. M. Snyder, Alex. McNabb, McDonald, W. Va., and others.

W. Va., Pocahontas County.—S. E. Slaymaker & Co. incorporated with \$50,000 capital stock by S. E. Slaymaker, John G. Luke, Adam K. Luke, all of New York, and others; will deal in timber lands and lumber.

Tenn., Chattanooga—Drugs.—Land Drug Co. incorporated with \$12,000 capital stock by R. H. Land, Sr., R. H. Land, Jr., and F. H. Bodeker.

Ga., Rome—Overalls, Tents, etc.—J. M. Sanders, Dalton, Ga., will establish overall and tent factory.

Ga., Rome—Bottling.—Coca-Cola Bottling Co. will erect additional building; two stories; brick; 40x84 feet.

Ky., Louisville—Chemicals.—Kirzinger Chemical Co. incorporated by Frank P. Kirzinger, John Volpert and Frank Coyle.

La., Bogalusa—Fiber Board, Boxes, etc.—Southern Wood Distilleries & Fiber Co., American Trust Bldg., Chicago, Ill., will erect buildings (for plant reported last year) as follows: Power-house, 50x90 feet; woodroom, 40x12 feet; chemical building, 60x44 feet; soda reclaiming system building, 50x64 feet; beater building, 40x176 feet; machine building, 40x272 feet; finishing building, 50x80 feet; machine shop, 50x128 feet; storehouse No. 1, 40x96 feet; storehouse No. 2, 40x96 feet; all of heavy mill and concrete construction except power-house and system building, which will be of steel and concrete and absolutely fireproof; all buildings located in form of rectangle with 50 feet of space between each for fire protection and with power-house as central unit; power-house will have Scotch marine boilers of 1000 horse-power; latter distributed throughout plant by rope transmission; 106-inch five-cylinder board machine with 70 driers is equipment for machine building and will be furnished by Black-Clawson Company, Hamilton, Ohio; chemical building will have rectifiers, stills and condensers to care for turpentine and resin products removed from wood by steam and mechanical pressure; 100-kilowatt direct-connected generator will furnish power for pumping water into a 5,000,000-gallon reservoir, for lighting plant, etc.; complete conveyor system for whole plant; daily output, 50 tons fiber board, mechanical and soda pulp; cost of initial plant, \$300,000.

La., New Orleans—Drugs.—A. Fly Company incorporated with \$30,000 capital stock by H. Craft, J. S. Norris and A. Fly.

La., New Orleans—Office Fixtures and Supplies.—Charles Wenar Co. incorporated with \$10,000 capital stock; will manufacture bank, office, store fixtures, etc.

La., New Orleans—Overalls.—Sweet & Orr, Thomas E. Gorling, New York, manager of manufacturing department, are planning to enlarge and improve plant.

La., Shreveport—Peanuts.—Bain Peanut Co., Wakefield, Va., proposes establishment of peanut factory.

Md., Baltimore—Corks and Seals.—Crown Cork & Seal Co., 1501 Gullford Ave., awarded contract to Monmonier & Sorrell, 1711 McCulloch St., Baltimore, for construction of 19 bake ovens in lithographing department.

Md., Baltimore—Shirts.—Hawkins Shirt Co. incorporated with \$50,000 capital stock by Victor L. Glasser, Milton F. Goodman, Chicago, Ill.; Frederick H. Mills, New York, and others.

Md., Sharptown—Yachts.—Sharptown Building Co., B. H. Phillips, president (recently noted incorporated with \$15,000 capital stock), will establish plant for manufacturing yachts; will erect 50x100 and 28x100-foot buildings, of ordinary construction, at cost of \$2000; will install woodworking machinery. (See "Machinery Wanted.")

Mo., Keytesville—Drugs.—Sneed Drug & Manufacturing Co. incorporated with \$10,000 capital stock by H. I. Sneed, J. D. Taylor, I. D. Canada and others.

Mo., St. Louis—Screens.—Central Screen Manufacturing Co. incorporated with \$25,000 capital stock by W. L. Musick, E. L. Musick and R. J. Burhen.

Mo., St. Louis—Dental Supplies.—Varney Dental Manufacturing Co. incorporated with \$10,000 capital stock by F. D. Varney, F. A. Plant, A. Diehl and others.

Mo., Tylertown—Turpentine.—Fernwood Lumber Co. will increase number of cup and boxes used for extraction of turpentine from 34,000 to about 500,000.

Mo., Kansas City—School Supplies.—Driesbach School Supply Co. incorporated with \$25,000 capital stock by J. P. Driesbach, L. B. Driesbach, H. T. Riley and others.

Mo., Kansas City—Envelopes.—Kansas City Envelope Co. incorporated with \$30,000 capital stock by H. M. Tomlinson, F. H. Wood and George H. Imrie.

Mo., St. Louis—Harness Fasteners.—Harness Lap Fastener Co. incorporated with \$5000 capital stock by Frank A. Boyer, Theodore Prieshoff and Theodore H. Koesler.

N. C., Charlotte—Gas.—Charlotte Gas & Electric Co., E. D. Latta, president, pro-

poses extension of gas mains to suburban districts.

N. C., Winston-Salem—Shoes.—Dixie Shoe Manufacturing Co. (recently reported incorporated with \$40,000 capital stock) has organized with V. E. Ballou president, A. H. Gal loway first vice-president, A. H. Miller second vice-president, W. F. Miller secretary-treasurer, W. H. Welland general manager; has secured quarters in Ogburn Building; will first wholesale hats, but will later issue additional stock and manufacture shoes.

Okla., Okeene—Cement Plaster.—South western Cement Plaster Co. will erect plant to replace burned structure; 60x250 feet; frame; ordinary construction; capacity 200 tons daily; cost \$250,000.

Tenn., Memphis—North Memphis Fire Protection Co. incorporated with \$40,000 capital stock by W. F. Omberg, Jr., R. G. Brown and others.

Tenn., Memphis—Storage Batteries.—Watson Storage Battery Co. incorporated by H. D. Hattel, C. J. Watson, Jr., M. B. Cooper and others.

Tenn., Memphis—Bags.—M. M. Bosworth, general manager, awarded contract to Selden-Breck Construction Co., Memphis, and St. Louis, Mo., for erection of bag factory; six stories and basement; 50x60 feet; mill construction.

Tex., Bellville—Creamery.—Bellville Pro moting Co. organized by C. F. Helmuth, C. Schaeferhammer, J. B. Lewis and others to promote establishment of creamery, ice and electric-light plants recently mentioned. (See "Machinery Wanted.")

Tex., Electra— Implements.—Pioneer Implement Co. incorporated with \$10,000 capital stock by C. H. Clark, G. J. Clark and J. G. Himes.

Tex., Houston—Ice-cream, etc.—Texas Frozen Dainty Co. organized by W. B. Miller, W. P. Morse and W. A. Rank, all of Kansas City, Mo.; leased building and will install machinery for manufacturing ice-cream, etc.

Tex., Houston—Coffee.—Check-Neal Coffee Co., J. O. Check, president, Nashville, Tenn., will erect addition to plant and double capacity; will install additional roasters.

Tex., Jacksonville—Bottling.—E. M. Grimes will erect brick building and establish bottling plant.

Tex., Nacogdoches—Refinery.—Guffey Refining Co. awarded contract to Littleton Herring, Nacogdoches, for erection of two storage tanks and warehouse.

Tex., Shiner—Bottling.—Shiner Brewing Co. will increase capital stock to \$10,000 and establish bottling department.

Va., Roanoke—Cigarette Machines.—Anti-toxic Cigarette Machine Co., C. M. Armes, president, increased capital stock from \$45,000 to \$100,000.

Va., South Boston—Novelties and Confectionery.—Virginia Novelty Supply Co. incorporated with \$15,000 capital stock; Thomas Easley, president; A. P. Gilbert, vice-president; W. M. Wood, secretary-treasurer.

W. Va., Charleston—Virginia Electric and Machine Works incorporated with \$50,000 capital stock by Edwin M. Keatley, James F. Schwalm, A. W. Fitzwater and others.

W. Va., Wheeling—Automobiles.—Standard Motor Car Co. incorporated with \$25,000 capital stock by Thomas W. Norton, J. F. Ranson, Frank O'Brien, E. E. Shaffer and Geo. A. Blackford.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Ark., Booneville—Chicago, Rock Island & Pacific Railway Co., J. B. Berry, chief engineer, Chicago, Ill., awarded contract to Otto Gas Engine Works, 355 Dearborn St., Chicago, for erection of coal-elevating plant at Booneville.

Ark., Wister (not a postoffice).—Chicago, Rock Island & Pacific Railway Co., J. B. Berry, chief engineer, Chicago, Ill., awarded contract to Otto Gas Engine Works, 355 Dearborn St., Chicago, for erection of coal-elevating plant at Wister.

Mo., St. Joseph.—Chicago, Burlington & Quincy Railroad, W. L. Breckinridge, engineer maintenance of way, Chicago, Ill., will, it is reported, enlarge terminals and erect freighthouse, expending about \$1,000,000.

Okla., Calvin.—Chicago, Rock Island & Pacific Railway Co., J. B. Berry, chief engineer, Chicago, Ill., awarded contract to Otto Gas Engine Works, 355 Dearborn St., Chicago, for erection of coal-elevating plant at Calvin.

Okla., Shawnee.—Chicago, Rock Island & Pacific Railway, J. B. Berry, chief engineer, Chicago, Ill., will not make improvements to shops at Shawnee. (Recently incorrectly reported.)

ROAD AND STREET IMPROVEMENTS

Ala., Birmingham.—City opened bids December 1 for certain grading, curbing, gutter, sidewalk, tar-cap macadam and bituminous-blinder macadam paving; also for construction of certain sanitary sewer; Maury Nicholson, City Engineer.

Ala., Huntsville.—City will pave, curb and otherwise improve Church St.; 20,000 yards of pavement and 10,000 feet of curb and gutter; bids to be opened December 28; Thomas W. Smith, Mayor. (See "Machinery Wanted.")

Fla., De Land.—Volusia county proposes to vote on issuance of \$250,000 of road bonds. Address County Commissioners.

Fla., Jacksonville.—L. F. Drysdale of Jacksonville is lowest bidder for certain paving on Duval road; paving at present is eight feet wide, and commissioners propose to widen it to 20 feet and make other improvements; first work to be done will be widening of road between Trout and Cedar Creeks, distance of three miles; bids for paving are based upon use of shell material. Address Duval County Commissioners.

La., Mansfield.—De Soto county will construct road to Sabine Parish line; \$70,000 certificates will be issued; L. M. Cook, chairman finance committee of Police Jury of De Soto county.

La., Shreveport.—City voted issuance of \$250,000 of bonds for street paving and storm-sewer construction. Address The Mayor.

Md., Upper Marlboro.—Prince George's county will grade and macadamize one mile of Suitland road; bids to be opened December 7; Henry St. J. L. Briscoe, clerk. (See "Machinery Wanted.")

Miss., Gulfport.—Gulfport Traction Co. awarded contract to M. F. Scary of Gulfport for street paving.

N. C., Asheville.—Kenilworth Land Co. awarded contract to B. J. Luther & Co. of Asheville to construct boulevard one and a half miles long through Forest Hill and Kenilworth properties; this work will also include building of bridge across ravine on present Kenilworth road; cost \$10,000; residents on South Main St. will petition Board of Aldermen to macadam about 1000 feet from South Main St. to connect with highway. (Recently mentioned.)

N. C., Hendersonville.—City will soon begin constructing cement sidewalks; \$20,000 bond issue has been sold. Address The Mayor. (Previously mentioned.)

N. C., Hickory.—City will construct 10,000 square yards of granolithic sidewalks, wood block and other pavements and macadam; \$60,000 bond issue voted; Gilbert C. White, Durham, N. C., is engineer. (Previously mentioned.)

N. C., Jonesboro.—Jonesboro township of Lee county will vote December 28 on issuance of \$10,000 of bonds for road improvements. Address County Commissioners, Sanford, N. C. (Recently noted.)

Okla., Ardmore.—City will pave streets recently mentioned; about 10 miles; plans by H. H. Sayre, City Engineer; some of the bids to be ready about January 1; W. R. Burnitt, Commissioner Streets, Alleys and Public Property.

Okla., Chandler.—Lincoln County Commissioners awarded contract to T. M. Steincher of Chandler for construction of road 31 miles long, 10 to 14 feet wide, across county; to cost \$135,000; surface to be of rock and oil. (Recently mentioned.)

Tenn., Bristol.—City is arranging to expend \$25,000 in street improvements; this is amount city receives of \$200,000 bond issue lately voted by county for road construction. Address The Mayor.

Tenn., Morristown.—City will vote January 15 on issuance of bonds for sewer construction. Address The Mayor.

Tenn., Nashville.—City has \$50,000 available for construction of granitoid curbs and sidewalks, bids recently noted to be opened November 30; about 6000 square yards combined, 2000 square yards plain sidewalk and 3000 linear feet concrete curbing; work under plans, specifications and inspection of Wm. W. Southgate, City Engineer.

Tex., Bay City.—City will expend \$11,000 on street improvements recently mentioned; John Sutherland, Mayor.

Tex., Celina.—Celina Improvement League, J. E. Bateman, president, will not make extensive improvements at present; is graveling streets; contemplates bond issue of \$50,000 in 1910 for paving about 8 miles public road. (Recently noted.)

Tex., Granbury.—Precinct No. 1, in Hood county, voted issuance of \$25,000 of bonds for road construction. Address County Commissioners.

Tex., Houston.—Magnolia Park Land Co., M. S. Waller, secretary, will construct

6000 linear feet cement sidewalks; bids to be opened December 4. (See "Machinery Wanted.")

Tex., Houston.—City will pave Main, San Jacinto, Travis and Washington Sts. with vitrified brick; bids to be opened December 13; H. B. Rice, Mayor. (See "Machinery Wanted.")

Tex., Richmond.—Road District No. 1 of Fort Bend county will vote January 1 on issuance of \$150,000 of bonds for road improvements. Address County Commissioners.

Tex., Sherman.—Grayson county will vote December 18 on issuance of \$250,000 of bonds for road construction in vicinity of Denison, Tex. Address County Commissioners.

Va., Alexandria.—City Council appropriated \$3000 to construct 24-foot roadway on North Washington St. Address The Mayor.

Va., Danville.—City is considering issuance of \$100,000 of bonds for improving West Main and Worsham Sts. and building bridge. Address The Mayor.

Va., Pulaski.—Bids will be opened December 11 for construction of macadam road from Pulaski to macadam road in Pulaski county, distance of 2.5 miles; P. St. J. Wilson, State Highway Commissioner, Richmond, Va. (See "Machinery Wanted.")

Va., Richmond.—City opened bids November 29 for laying granolithic curbs and gutters, constructing certain sewers, grading and paving with granite spalls certain alleys and paving with brick certain sidewalks; Charles E. Bolling, City Engineer.

Va., Shreveport.—City voted issuance of \$250,000 of bonds for street paving and storm-sewer construction. Address The Mayor.

Va., Union.—City will award contract to T. H. O'Brien & Co., Birmingham, Ala., at \$23,317.73 to construct sanitary sewers; Whealock Engineering Co., 71 Farley Bldg., Birmingham, Ala., engineer. (Lately noted.)

Ark., Morrilton.—Sewerage Commissioners have had plans and specifications prepared for proposed sewerage system; estimated cost \$10,000, exclusive of purchase price of site for septic tank.

Ky., Louisville.—Sewerage Commissioners awarded contract to E. A. Barker & Son of Louisville to construct Jefferson-street sewer, contract No. 57 of sewerage system mentioned at various times. (Further facts recently noted.)

Ky., Louisville.—Bids will be opened December 17 for construction of 21st-street sewer, contract No. 58; Harrison P. Eddy, 14 Beacon St., Boston, Mass., is consulting engineer; P. L. Atherton, chairman Sewer Commissioners, 605 Equitable Bldg. (See "Machinery Wanted.")

La., Shreveport.—City voted issuance of \$250,000 of bonds for storm-sewer construction and street paving. Address The Mayor.

Okla., Ardmore.—City will award contract about January 1 for construction of proposed sewer extension and water-works; H. H. Sayre, City Engineer; D. H. Dawson, Commissioner Water-works, Sewerage and Lights. (See "Water-works.")

Oklahoma, McAlester.—City will construct various sections of sewer system; bids to be opened December 6; J. M. Ganaway, City Clerk. (See "Machinery Wanted.")

Oklahoma, Oklahoma City.—City will open bids December 13 for construction of lateral sewer in Bellemont, Epworth View and Military Park additions; also, on same date, for construction of Military Ave. main storm sewer, and on December 20 for construction of Deep Fork sewerage disposal works and septic process; Bob Parman, City Clerk. (See "Machinery Wanted.")

Okla., Vickburg.—Vicksburg Water-Works Co. awarded contract to A. M. Lockett & Co., New Orleans, La., for 6,000,000-gallon pumping engine to be installed in water plant. (Recently noted.)

Okla., Hermann.—City will vote on issuance of \$20,000 water-works bonds. Address The Mayor.

Okla., Ardmore.—City is proceeding with plans for proposed water-works and sewer extensions; to include filtration plant, improvements on dam, construction of two septic tanks, etc.; cost \$155,000; will award contracts about January 1; D. H. Dawson, Commissioner Water-works, Sewerage and Lights; H. H. Sayre, City Engineer. (Further facts lately mentioned.)

Okla., Broken Arrow.—City held election December 1 on issuance of \$37,000 of bonds for construction of water-works. Address The Mayor.

Okla., Chelsea.—City opened bids December 2 for purchase of all material necessary in construction of proposed water-works; O'Neill Engineering Co., Dallas, Tex., is engineer in charge.

Okla., Gotebo.—Archer & Rollins, engineers, Kansas City, Mo., may be addressed for information relative to construction of water-works recently mentioned; \$28,000 to be expended.

Tex., Atlanta.—City will construct water-works; bids are invited for construction work and for furnishing pumps, gas engine, etc.; Hugh Carney, City Secretary. (See "Machinery Wanted.")

Tex., Bay City.—City will expend \$2000 on extension of water system recently mentioned; 500,000 gallons capacity; John Sutherland, Mayor.

Tex., Calvert.—Calvert Water, Ice & Electric Co., J. P. Casimir, president, recently noted to increase capital stock, will operate plant in about 60 days. (See "Electric-light and Power Plants.")

Okla., Wolf, R. F. D. from Maud.—Wolf Telephone Co. Incorporated by J. W. Vilenes, R. W. Snyder, L. B. Kiker and others.

TEXTILE MILLS

Ala., Jacksonville—Cotton Cloth.—Geo. P. Ide, A. H. Robbins and others will, it is reported, build weaving mill.

Miss., Natchez—Print Cloth.—Natchez Cotton Mills will, it is reported, install machinery for manufacturing print cloth.

N. C., Flat Rock—Finishing.—Skyland Hosiery Co. has not decided to rebuild finishing plant lately reported burned; will probably not rebuild.

N. C., Lumberton.—Jennings Cotton Mill Co. incorporated with capital stock of \$50,000 by H. B. Jennings, L. H. Caldwell and others.

N. C., North Wilkesboro.—Flinwin Cotton Mill organized with capital stock of \$200,000 by T. B. Flinley of North Wilkesboro, J. Locke Erwin of Concord, N. C., and others.

S. C., Greenville—Bleaching and Finishing, Union Bleaching & Finishing Co., New York office at 53 Leonard St., will hold special meeting in December to consider increasing capital and doubling equipment; affirmative action will not necessitate addition to mill building but will require several warehouses; will install electric drive to replace steam-power; electricity furnished by local transmission lines of Southern Power Co. of Charlotte, N. C. (Union company lately noted as having ordered machinery to increase capacity 50 per cent; new meeting is for further increase.)

S. C., Jonesville—Hosiery.—Palmetto Hosiery Co. is being organized with capital stock of \$75,000 to succeed Jones Knitting Mills; E. F. Kelley will probably be president.

Tex., McKinney—Colored Cottons.—Lone Star Cotton Mill organized with capital stock of \$200,000 to build plant lately reported; J. Berry Burns, president; J. L. White, treasurer; W. B. Newsome, secretary.

WATER-WORKS

Ark., Conway.—City will expend \$50,000 to \$75,000 on water-works previously mentioned; engineer and architect not yet employed; G. W. A. Wilson to be addressed.

Fla., Lakeland.—City voted issuance of \$34,000 of bonds for improvement of water-works and extension of mains; John S. Edwards, Mayor. (Lately mentioned.)

Miss., Columbia.—City awarded contract to Xavier A. Kramer, Magnolia, Miss., and Mr. O'Rourke, New Orleans, La., to construct four extensions to water mains; fifth extension will be let when these four have been completed; total estimated cost \$6000; E. Blanchard, engineer in charge; Toxey Hall, Mayor. (Further facts lately mentioned.)

Miss., Vicksburg.—Vicksburg Water-Works Co. awarded contract to A. M. Lockett & Co., New Orleans, La., for 6,000,000-gallon pumping engine to be installed in water plant. (Recently noted.)

Mo., Hermann.—City will vote on issuance of \$20,000 water-works bonds. Address The Mayor.

Okla., Ardmore.—City is proceeding with plans for proposed water-works and sewer extensions; to include filtration plant, improvements on dam, construction of two septic tanks, etc.; cost \$155,000; will award contracts about January 1; D. H. Dawson, Commissioner Water-works, Sewerage and Lights; H. H. Sayre, City Engineer.

Okla., Broken Arrow.—City held election December 1 on issuance of \$37,000 of bonds for construction of water-works. Address The Mayor.

Okla., Chelsea.—City opened bids December 2 for purchase of all material necessary in construction of proposed water-works; O'Neill Engineering Co., Dallas, Tex., is engineer in charge.

Okla., Gotebo.—Archer & Rollins, engineers, Kansas City, Mo., may be addressed for information relative to construction of water-works recently mentioned; \$28,000 to be expended.

Tex., Atlanta.—City will construct water-works; bids are invited for construction work and for furnishing pumps, gas engine, etc.; Hugh Carney, City Secretary. (See "Machinery Wanted.")

Tex., Bay City.—City will expend \$2000 on extension of water system recently mentioned; 500,000 gallons capacity; John Sutherland, Mayor.

Tex., Calvert.—Calvert Water, Ice & Electric Co., J. P. Casimir, president, recently noted to increase capital stock, will operate plant in about 60 days. (See "Electric-light and Power Plants.")

TELEPHONE SYSTEMS

Miss., Collins.—Mississippi Home Telephone Co., Geo. C. Graeber, president, Jackson, Miss., will establish telephone exchange.

N. C., Salisbury.—Independent Telephone Co. organized with \$25,000 capital stock by Lexington, Concord and Irredell telephone companies; has franchise; will operate long-distance phone line and establish 25 toll stations in Salisbury.

Tex., Dallas.—City awarded contract to William Todd Company, Youngstown, Ohio, to furnish pumping engine for White Rock Reservoir; pump is to maintain head against 168,000,000 foot-pounds and is to have capacity of 20,000,000 gallons of water in 24 hours; J. M. Bassett, City Engineer. (Recently mentioned.)

Tex., Lubbock.—City has engaged E. Leon Dalton, Dallas, Tex., as engineer for proposed sanitary sewer and water-works extension estimated to cost \$60,000.

Tex., Marshall.—City will expend about \$18,000 on water-works improvements recently mentioned; daily capacity 2,000,000 gallons; 12-inch main; will install about 800 meters; date of opening construction bids not fixed; W. P. Coleman, engineer.

Tex., Terrell.—City voted issuance of \$10,000 of bonds to extend water system and install additional machinery in electric-light plant. Address The Mayor. (Lately noted.)

W. Va., Kimball.—L. Kaufman, Northfork, W. Va., will begin at once erection of power-house and other buildings necessary for construction of proposed water-works and electric-light plant; J. S. Shaw, Algoma, W. Va., has about completed surveys; estimated cost, exclusive of site, \$100,000.

WOODWORKING PLANTS

Fla., Citrus.—Crate Mill.—Pineapple-Orange Co., John R. Williams, secretary, contemplates erection of crate mill. (See "Land Development.")

Fla., St. Petersburg.—Furniture.—Pressman-Caldwell Company incorporated with \$10,000 capital stock; C. B. Caldwell, president; will establish furniture factory. (See "Miscellaneous Enterprises.")

La., Alexandria.—Wood Pipe.—A. Wyckoff & Son Company, Elmira, N. Y., has begun construction of plant previously reported; will erect 75x150-foot building, sheds, engine-house, etc., of ordinary construction; will install equipment for manufacturing steel-banded wood water pipe and wood steampipe casting; will remove to Alexandria the machinery of one of its Elmira plants; C. C. Crew is architect and engineer in charge at Alexandria.

N. C., Morganton.—Woodworking.—Frank S. Drury contemplates installing woodworking machinery to be operated in connection with corn mill recently completed; plans not definite. (See "Machinery Wanted.")

Tenn., Jacksboro.—Staves.—Wynn Stave Co. incorporated with \$5000 capital stock by Harry Wynn, F. H. Goodridge, J. H. Hinsley and others.

Tex., Beaumont.—Carriages.—W. C. Gray, Jr., is interested in organization of company with \$500,000 capital stock to establish carriage factory; to be merged with Beaumont Spoke & Handle Co.

Va., Lynchburg.—Boxes.—American Box Co. will enlarge plant. (See "Lumber-manufacturing Plants," New Glasgow, Va.)

BURNED

Ala., Bessemer.—Smith Manufacturing Co.'s plant; loss \$20,000.

Ark., Double Wells.—G. T. Caldwell's mill and gin.

Ala., Montgomery.—Bernard Frank & Co.'s store; building owned by Abraham Bros.; loss on building, \$30,000.

Ga., Americus.—Farmers' Cotton Oil Co.'s seedhouse; loss \$10,000.

Ky., Hickman.—Richmond & Bond Oil Mill, operated by G. B. Bond, Chattanooga, Tenn.; loss \$100,000.

La., Lake Charles.—Lyric Theater; American Feed Co.'s warehouse; Coley Brandt's residence, owned by L. Kaufman; total estimated loss \$25,000.

La., New Orleans.—Schmidt & Ziegler's coffee-roasting plant; building owned by Ferdinand Ziegler; loss \$17,625.

La., New Orleans.—Crescent Bed Co.'s plant; loss \$100,000.

La., Slaughter.—Seedhouse owned by Capital City Oil Co., Baton Rouge, La.

Miss., Sontag.—William Hockett's sawmill.

N. C., Durham.—Imperial Tobacco Co.'s cooper shop; loss \$3000.

N. C., Greensboro.—Gulfard Plaster & Cement Co.'s plant; loss \$30,000.

S. C., Charleston.—Mr. Clark's tobacco warehouse.

S. C., Orangeburg.—South Carolina State Agricultural and Mechanical College for Negroes' Bradham Hall; loss \$50,000.

S. C., Pickens.—Bruce & Bivens' planing mill and lumber yard; loss \$6000.

Tenn., Clarksville.—T. N. Smith's tobacco factory; loss \$5000.

Tex., Dallas.—Wallace Lancy's blacksmith shop; loss \$3000.

Tex., Marshall.—Boys' dormitory of Bishop College; estimated loss, \$10,000.

Tex., Moscow.—W. T. Carter & Bro. lost only lumber yard (not sawmill) in recent fire; will not rebuild. (Previous report incorrect.)

Tex., Point Blank.—Mr. Robeson's saw-mill, gin and grist mill; loss \$7000.

Va., Clifton Forge.—Farrer & Matthews' steam laundry; loss \$7000.

Va., Warrenton.—C. Ullman's stable, loss \$2500; Bradburn & Clatterbuck's stable, loss \$3000; Garner & Co.'s skating rink, loss \$4500; W. A. Garner's residence, stable and several tenant-houses, loss \$10,000; F. C. Brooke's residence, loss \$2500; municipal building, containing Mayor's office, council-rooms and fire-engine company, loss \$3500; T. E. Battle's store and dwelling, loss \$12,000; Mrs. H. A. Parker's dwelling, loss \$3000; W. C. Marshall's residence, loss \$3500; James S. Dorum's three buildings, loss \$8000; Edward Carter's residence, loss \$10,000; Mrs. Fannie Britton's residence, loss \$5000; Warren Green Hotel, loss \$3000.

BUILDING NOTES

APARTMENT-HOUSES

D. C., Washington.—Simon Oppenheimer of S. Oppenheimer & Bro., 514 9th St. N. W., is having plans prepared by Louis Levi, American Bldg., Baltimore, Md., for four-story apartment-house on 12th St.

Okla., Oklahoma City.—Sidney T. Bradbury will erect store and apartment-house; 50x80 feet; cost \$15,000.

Tex., Houston.—J. O. Ross will soon award contract for erection of apartment-house; 150x100 feet; seven stories and basement; 50 apartments; pressed brick and terra-cotta; white marble interior finish; double electric elevators; cost \$300,000; plans by Sanguinet & Staats, Houston. (Previously mentioned.)

BANK AND OFFICE BUILDINGS

Ark., Dardanelle.—Farmers' Bank & Trust Co., W. S. McCarroll, secretary, awarded contract to C. D. Murphy and E. S. French of Dardanelle for erection of bank building; plans by Theo. M. Sanders, Southern Trust Bldg., Little Rock, Ark. (Lately noted.)

Tex., Atlanta.—Mrs. J. B. Whitehead will erect six-story building to cost \$65,000.

Ky., Louisville.—Lincoln Savings Bank is considering erection of 15-story office building as addition to Lincoln Bldg.; size 53x68 feet; probably electric elevator; estimated cost, \$250,000.

N. C., Greensboro.—W. M. McAdoo will erect two-story brick office building.

N. C., Hendersonville.—People's National Bank is having additional plans prepared for two-story reinforced concrete bank building; plans, recently noted as prepared by R. S. Smith, Asheville, N. C., call for three-story pressed-brick structure; bids will be invited on both kinds of construction; estimated cost of brick structure, \$40,000.

Okla., Tulsa.—M. B. Shutt will erect store and office building; three stories; depth 140 feet; brick and stone; cost \$20,000.

Okla., Tulsa.—Palace Clothing Co. will erect eight-story office building.

Tenn., Chattanooga.—Hamilton Safe Deposit Co., care of Hamilton National Bank, 701 Market St., organized with \$400,000 capital stock to erect 15-story steel bank and office building; cost of building, \$250,000; size 60 feet 9 inches by 100 feet; architect not selected; officers same as those of Hamilton National Bank, including T. R. Preston, president; H. T. Olmstead and G. H. Miller, vice-presidents. (Recently noted as "G. H. and F. J. Miller.")

Tenn., Knoxville.—Holston National Bank purchased site 48x150 feet for \$125,000 on which to erect bank and office building; leases on site expire in January, 1912; 12 to 15-story steel fireproof construction office building proposed.

Tex., Amarillo.—Amarillo National Life Insurance Co., C. T. Herring, president (recently organized) contemplates erection of building later. (See "Machinery Wanted.")

Tex., Brady.—Brady National Bank is reported as contemplating erection of 50x80 foot building.

Tex., Chaplin.—D. B. Chaplin will expend \$14,000 on erection of building (recently noted) for Guarantee State Bank; 50x80-foot structure; gas lighting; plans by Atlee B. Ayres, 228 West Commerce St., San Antonio, Tex.; date of opening bids not set.

Tex., Gainesville.—Sanchez Haya Real Estate Co. awarded contract to Hard Construction

Tex., Fort Worth.—Jesse Jones, Houston, Tex., and associates purchased site for \$207,500 on which it is proposed to erect bank and office building; 17 stories, basement and sub-basement; 78x95 feet; 100,000 square feet floor space; steel frame; fireproof construction; steel vault.

Tex., Quanah.—B. J. Brothers and A. Guthrie will erect four-story office building at McDonald and Johnson Sts.; fourth floor to be used by Odd Fellows; approximate cost, \$50,000. Address B. J. Brothers.

Tex., Sherman.—Bids will be received by W. C. Eubank, chairman building committee Merchants and Planters' National Bank until December 20 for five-story fireproof bank and office building; also bids on heating, lighting and power, elevators, bank fixtures, etc. Plans can be had on application to architect, Malcolm S. Martin, Hannibal, Mo.

Tex., Waco.—First National Bank will erect eight-story office building to cost \$150,000.

W. Va., Mullens.—Mullens Banking Co., L. N. Frantz, Glen Jean, W. Va., cashier, will erect bank building; three stories; stone; 30x60 feet; hot-water heat; cost \$8500; plans by A. E. Rabenstein, Charleston, W. Va.

CHURCHES

Md., Baltimore.—Edward H. Glidden, Glenn Bldg., Baltimore, is revising plans prepared by Henry Vaughan, Boston, Mass., for proposed edifice for St. George's and St. Barnabas' Protestant Episcopal churches, to be built at Charles-street boulevard and University Parkway. Rev. Dr. Arthur C. Powell, 709 Park Ave., is chairman of building committee. (Previously noted.)

Miss., Flora.—Baptist Church, Rev. J. G. Murphy, pastor, will erect edifice; brick and concrete; stone trimmings; seating capacity, 300; ordinary construction; hot-air furnace; cost \$10,000; plans by C. J. Harper, Jackson, Miss.

Miss., Jackson.—St. Andrew's Episcopal congregation will begin work at once on finishing interior of edifice; cost between \$8000 and \$10,000, exclusive of chancel; will probably follow original plans; Halsey Werlein, Jr., rector.

N. C., Apex.—Baptist congregation will erect edifice. Address The Pastor, Baptist Church.

S. C., Rock Hill.—Methodist Congregation will erect edifice. Address The Pastor, Methodist Church.

Tenn., Knoxville.—Deadrick Avenue Baptist Church, Rev. C. B. Waller, pastor, is having plans prepared by L. C. Water of Knoxville for edifice to replace burned structure. (Previously mentioned.)

Tenn., Knoxville.—First Methodist Episcopal Church South has plans by George F. Barber & Co., of Knoxville for edifice to cost \$4000 to \$6000.

Tenn., Nevada.—Bids will be received until December 8 for erection of brick church building. Plans and specifications can be seen at Sparger & Peters' office, Bonham, Tex., or at L. T. Gay's office, Nevada. Address L. T. Gay, secretary.

Tex., Palestine.—Centenary Methodist Congregation will erect edifice to cost \$25,000. Address The Pastor, Centenary Methodist Church.

Tex., Quanah.—McDonald Street Methodist Church reported to erect \$40,000 edifice. Address The Pastor, McDonald Street Methodist Church.

Tex., San Antonio.—McKinley Avenue Methodist Church, Rev. S. C. Buchanan, pastor, will erect edifice to cost \$15,000 to \$20,000.

Tex., San Antonio.—Prospect Hill Methodist Church, Rev. Z. V. Lisle, pastor, will erect edifice to cost about \$25,000.

Tex., San Antonio.—Laurel Heights Methodist Church, Rev. J. D. Young, pastor, will erect edifice to cost between \$30,000 and \$50,000.

Tenn., Knoxville.—First Methodist Episcopal Church South has plans by George F. Barber & Co., of Knoxville for edifice to cost \$50,000.

Md., Baltimore.—Brightwood Improvement Co. awarded contract to Arthur F. Nicholson, Ferndale and Gwynn Oak Aves., Baltimore, for erection of dwelling at Howard Park; two and a half stories; cost \$6000.

Md., Catonsville.—Charles H. Steffey, 10 Belvedere Ave., has plans by Clyde N. Fraz, 11 East Pleasant St., Baltimore, Md., for residence at Ten Hills; 12 rooms; stone to second-floor line and above that point stucco; site 123x152 feet.

Md., Catonsville.—Benjamin F. Hearn, 212-220 East Lexington St., Baltimore, Md., is having plans prepared by Walter M. Gleck, 606a Equitable Bldg., Baltimore, Md., for cottage at Ten Hills; 12 rooms; colonial stucco design.

Md., Cockeysville.—Ephraim Macht, Macht Bldg., 11-13 East Fayette St., Baltimore, Md., awarded contract to Howard Pitts for erection of 20 dwellings on Warren Rd. near Cockeysville; cost \$28,000.

Md., Roland Park.—James A. Dunham, 1617 St. Paul St., Baltimore, awarded contract to Roland Park Co., Roland Park, for erection of residence on Midvale Rd.; two and a half stories; 47x28 feet; frame and cement stucco; shingle roof; Old English type; cost \$7500; plans by Bayard Turnbull, 12 East Lexington St., Baltimore. (Recently mentioned.)

Miss., Gulfport.—Dr. Wilkinson reported to contemplate erection of \$5000 frame residence; plans not prepared.

Miss., Gulfport.—Miss M. Harris, Biloxi, Miss., had plans prepared by H. N. Austin, Jackson, Miss., for proposed 11-room residence; frame; cost \$8000.

Miss., Gulfport.—W. L. Dunham contemplates erection of \$5000 frame residence; plans not prepared.

Mo., Kansas City.—E. W. Clark will erect dwelling; stone; two stories and attic; 51x33 feet; cost \$17,000.

N. C., Concord.—R. L. Patterson, Charlotte, N. C.; V. L. Norman, Concord, and others will erect number of cottages on Mis-

enheimer Springs property, recently purchased. (See "Hotels.")

S. C., Greenville.—Cleveland & Williams will erect three dwellings; bungalow style; cost \$6000.

Oklahoma, Enid.—George F. Southard is planning to erect residence.

Oklahoma, Oklahoma City.—E. T. Friegs awarded contract to Wm. Riddle, Oklahoma City, for erection of two dwellings.

Tenn., Erwin.—Carolina, Clinchfield & Ohio Railway awarded contract to Marvin S. Weaver, Johnson City, Tenn., for erection of five dwellings; five rooms each; material purchased.

Tenn., Knoxville.—W. S. Nash has plans by George F. Barber & Co., Knoxville, for residence; cost \$8000.

Tenn., Memphis.—M. B. Pell will erect dwelling; two stories; eight rooms; brick veneered; slate roof; cost \$5000.

Tenn., Memphis.—M. B. Hadden awarded contract to W. R. Gilbert, Memphis, for erection of tenement; two stories; 24 rooms; brick; metal roof; cost \$6000.

Tenn., Memphis.—Dwelling.—Wesley Halliburton awarded contract to Tom Turpin, Memphis, for erection of dwelling; two stories; eight rooms; stone veneer; cost \$6000.

Tenn., Memphis.—H. A. Galther awarded contract to M. J. Lutz & Bro., Memphis, for erection of dwelling; two stories; eight rooms; brick and frame; cost \$4500.

Tenn., Nashville.—C. T. Cheek has plans by Charles Ferguson, Nashville, for residence; gray pressed brick; white stone trimmings; tile floors; two stories, basement and attic; hot-water heat.

Tex., Bay City.—Ed Kilbridge will erect \$7000 residence.

Tex., Dallas.—J. E. Thatcher awarded contract to J. N. Haney, 155 North Market St., Dallas, for erection of seven-room dwelling recently noted; two stories and basement; frame and stucco; ordinary construction; hot-water heat; electric and gas lighting; cost \$6000; plans by S. C. Skeltrig, 515 North Texas Bldg., Dallas.

Tex., Mexia.—B. S. Smith will erect dwelling recently noted; 1½ stories; cost \$2500. (See "Machinery Wanted.")

Tex., Quanah.—S. F. McFarland, care W. R. DuPuy, will erect residence.

Tex., San Antonio.—Thomas A. Coleman is having plans prepared for residence.

Va., Norfolk.—D. Baker Ames is having plans prepared by R. E. Mitchell, Norfolk, for residence; cost \$7000.

Va., Norfolk.—C. M. Barry, Chamberlain Bldg., has plans by B. F. Mitchell, Seaboard Bank Bldg., Norfolk, Va., for erection of eight dwellings; ordinary construction; furnace; electric lighting; cost \$25,000; opens bids December 3.

Va., Richmond.—H. C. Rueger will erect two-story brick dwelling; cost \$6000.

Va., Richmond.—W. J. Ready will erect two-story brick tenements; cost \$17,000.

Va., Warrenton.—Frank C. Brooke will receive bids at once for erection of seven-room dwelling reported burned; either cement, concrete or brick; cost \$2500.

Va., Wedderburn (not a postoffice).—Alex. J. Wedderburn, 306 9th St., Washington, D. C. recently noted to rebuild burned dwelling, will probably erect 18-room structure; concrete fireproof construction; heating and lighting undecided. (See "Machinery Wanted.")

GOVERNMENT AND STATE BUILDINGS

Fla., Tampa.—Laboratory.—Dekie & McGucken of Tampa are lowest bidders at \$15,76 for erection of branch State laboratory; two stories and attic; waterproof; 42x80 feet; pressed brick; granite trimmings; tile roof; first floor and half second will be paved throughout with parazzo; plans and specifications by Shaw & Jay, American National Bank Bldg., Tampa. (Recently mentioned.)

Ga., Milledgeville.—Reformatory.—Prison Commission approved plans by A. C. Bruce, Atlanta, Ga., for reformatory building; two stories; 40x60 feet; brick; bids will soon be invited; \$4000 available. (Recently mentioned.)

Tex., San Antonio.—Lodge.—Bids will be received at office of Constructing Quartermaster, Fort Sam Houston, Tex., until December 22 for construction, plumbing, hot-air heating and electric wiring of lodge at National Cemetery, San Antonio, Tex. Plans and specifications may be seen in above office; bidders to state names of manufacturers whose goods they propose to furnish. Address Tilman Campbell, Constructing Quartermaster.

HOTELS

Ga., Macon.—Bartow Stubbs has not awarded contract for rebuilding of burned hotel at Tybee. (Recently incorrectly reported.)

Ky., Paintsville.—John C. C. Mayo will, it is reported, erect hotel to cost \$50,000.

La., Covington.—St. Tammany Hotel Co., recently reported organized by Louis A. Denechaud, New Orleans, La., and others, has plans by Stevens & Co. of New Orleans for hotel to be erected on Sulphur Springs property, comprising 165 acres, with two-mile frontage on Bogie Falaya River; plans call for four-story structure containing 300 rooms, but present intention is to erect only main building with lobbies, dining-room, etc., with 155 guestrooms; two pavilions containing 75 guest chambers each are to be built later; dining-room is designed to accommodate 300 guests at table; exterior features include sun parlor and promenade, with drinking fountain, verandas and music pavilion; ballroom 50x75 feet, reception-rooms, etc., on second floor; roof in central portion of structure is to be recreation garden; Spanish mission architecture; frame construction; concrete foundations; stucco exterior; tile roof; steam heat; electric lighting; baths, laundries; natatorium; telephone and telegraph service; refrigerator plant; laundry; power plant; water to be secured from artesian wells on property.

La., Mandeville.—Mandeville Hotel & Improvement Co. organized with \$50,000 capital stock by Henry Zarich, Sr., of Mandeville and A. D. Piggio, New Orleans, La., to erect hotel on beach at Mandeville.

N. C., Concord.—Rev. R. L. Patterson, Charlotte, N. C.; Arthur Patterson, Albemarle, N. C.; Rev. J. F. Shenk and V. L. Norman, both of Concord, purchased Misener Springs property in Stanly county and will remodel hotel, equipping it with electric and plumbing facilities; will also erect number of cottages.

N. C., Marion.—George E. Woods, Sumter, S. C., is considering erection of hotel in Marion.

N. C., Wilmington.—Wrightsville Beach Hotel Co., E. L. Hinton, manager, awarded contract to and has plans by Jos. F. Leitner for erection of 80-room annex to hotel at Wrightsville Beach recently noted; three stories; frame; electric lighting; will also construct 600-foot steel pier; cost of hotel and pier, \$25,000; material contracted for. (See "Miscellaneous Construction.")

Okl., Oklahoma City.—William Riddle will erect proposed hotel; two stories; frame; 14 rooms; cost \$40,000.

Tex., Brownwood.—Southern Hotel Co. accepted plans for proposed hotel; four stories and basement; reinforced concrete and brick; stone trimmings; fireproof; cost \$100,000.

Tex., Chapin.—D. B. Chapin has not set date of opening bids for erection of \$25,000 hotel building recently mentioned; 50 rooms; gas lighting; plans by Atlee B. Ayres, 228 West Commerce St., San Antonio, Tex.

Tex., Coleman.—Miss Daisy Clemme, San Angelo, Tex., will erect 40-room hotel.

Tex., El Paso.—Charles De Groff, owner Sheldon Hotel, is having plans prepared for remodeling interior of hotel; expenditure from \$40,000 to \$50,000.

Tex., Galveston.—Dennis Foley will erect hotel; five stories; 75 rooms; cost about \$25,000.

Va., Fredericksburg.—Business Men's Association appointed committee, C. W. Jones, chairman, to promote erection of hotel.

Va., Warrenton.—C. Ullman will erect three-story annex to hotel reported burned; cost \$3000; low-pressure steam heat; electric lighting; plans undecided.

MISCELLANEOUS STRUCTURES

Ala., Tuscaloosa.—Lodge.—Tuscaloosa Lodge, Woodmen of the World, purchased site and will erect lodge building.

Ark., Corning.—Business.—R. E. Hawks will erect business building; two stories; brick.

Ark., Jonesboro.—Lodge.—Jonesboro Lodge of Elks awarded contract to Henry Lesmeister, Jr., Jonesboro, for erection of proposed lodge building; cost \$25,000.

Ark., Marked Tree.—Store.—E. Ritter awarded contract to Wm. Fels, Marked Tree, for erection of \$7000 store building; size 50x100 feet; electric lighting; plans by A. A. Chighizola, Memphis, Tenn. (Recently incorrectly noted.)

Ga., Americus.—Clubhouse.—Americus Country Club awarded contract for erection of proposed clubhouse.

Ga., Atlanta.—Business.—Mrs. J. B. Whitehead will erect business building; brick;

buff brick; white terra-cotta trimmings; mill construction; six stories, including basement; foundation to support additional stories; site 91x106 feet.

Ga., Atlanta.—Business.—Hugh T. Inman will erect two business buildings—one four stories, brick, 61x110 feet, cost \$25,000; the other three stories, 60x100 feet; cost \$15,000.

Ga., Brunswick.—Business.—Senator Alken will erect business block; three stories; brick; cost \$22,000; electric elevator.

Ga., Lagrange.—Sanatorium.—Dr. Henry R. Slack had plans prepared by A. W. Smith, National Bank Bldg., Savannah, Ga., for annex to Lagrange Sanatorium recently mentioned; brick-veneer structure; 40x60 feet; three stories; 15 rooms, with halls; steam heat; electric lighting; electric elevators; cost of completed building, \$15,000.

La., Folsom.—Business.—J. D. McLain will erect business building.

Md., Baltimore.—Hospital.—Johns Hopkins Hospital, John C. Thomas, treasurer, Calvert Bldg., awarded contract to Pittsburgh (Pa.) Construction Co. for erection of Phipps Psychiatric Clinic building; five full stories, roof garden and basement; facade of pressed brick, stone and terra-cotta; steel and concrete construction; balconies and porches on each story; cost \$750,000; plans by Grosvenor Atterbury, New York. (Previously mentioned.)

Miss., Eupora.—Store.—T. W. Foard will erect \$3000 one-story brick dry goods store.

Miss., Gulfport.—Clubhouse.—Mississippi Coast Country Club, J. M. Hairston, secretary, will probably select plans by R. E. De Buys, New Orleans, for erection of building recently mentioned; to include kitchen, pantry, ballroom, etc.; two stories; frame; mill construction; will probably install hot-air heat; dumbwaiter; electric lighting; cost \$20,000.

Mo., Kansas City.—Business.—Miss Sarah Sheldy will erect business building; three stories; brick and concrete; 34x12 feet; cost \$18,000.

Mo., St. Louis.—Store.—Lammert Furniture Co. leased building and will expend \$100,000 for improvements, including plate-glass show windows, overhanging glass portecochere, sprinkling system, four high-speed elevators, hardwood maple floors, repainting exterior and decorating interior.

N. C., Fayetteville.—Store and Office.—S. H. Kress, 396 Broadway, New York, has plans by Seymour Burrell, New York, for four-story store and office building.

N. C., Gibson.—Store.—Z. V. Pate will award contract for construction of two-story building recently mentioned; 75x250 feet; fireproof construction; will install elevator; heating and lighting not yet decided; plans by Hunter & Gordon, Charlotte, N. C. (See "Machinery Wanted.")

N. C., Newbern.—Business.—Lucas & Lewis awarded contract to Rhodes & Underwood, Newbern, for erection of business building; two stories; brick.

N. C., Winston-Salem.—Business.—C. J. Ogburn purchased site 21x101.4 feet and will erect business building.

Okl., Oklahoma City.—Mercantile.—Owens & Welsh will erect mercantile building; three stories and basement; 50x140 feet; finished in stone and terra cotta; plans by Layton, Smith & Hawk, Oklahoma City.

Ola., Oklahoma City.—Store and Office.—Levy Bros. will erect store and office building; three stories and basement; 75x140 feet; plans by Layton, Smith & Hawk, Oklahoma City.

Ola., Tulsa.—Business.—Julius Skusa will erect business building; two stories; brick; 25x30 feet; cost \$10,000.

Pa., Warrenton.—Stable.—C. Ullman will rebuild stable reported burned; loss \$2500.

W. Va., Keystone.—Store.—A. L. Calhoun will erect store building to replace structure recently reported burned; two stories; brick.

not decided; plans to be prepared by architect.

Tenn., Chattanooga.—Mercantile Building.—Allen Bros., 1114 Whiteside St., awarded contract to E. L. Hudnall, 519 East Main St., Chattanooga, for erection of two-story brick mercantile building recently mentioned; composition roof; first story stone; cabinet mantels; electric and gas lighting; cost \$4500.

Tenn., Knoxville.—Exposition.—Appalachian Exposition Co. accepted plans by R. F. Graf, Knoxville, for main exposition building; 400x150 feet; exterior finished in stucco; one-story balcony, 26 feet in clear; will also erect manufacturers' building and stable with 250 stalls. (Recently mentioned.)

Tenn., Maryville.—Hall.—George F. Barber & Co., Knoxville, have prepared plans for proposed hall.

Tenn., Memphis.—Business.—Henry Loeb & Co. purchased site 148 feet 6 inches by 164 feet 6 inches, and is reported to erect business buildings.

Tex., Brady.—Business.—J. B. Fitzgerald will erect business building; two stories; stone; 70x90 feet.

Tex., Dallas.—Business Building.—B. J. Fitzgerald is reported as to erect 70x30-foot building.

Tex., Dallas.—Business.—S. F. Murphy has plans by E. L. Dalton, Dallas, for business building; one-story brick; cost \$17,500.

Tex., Dallas.—Mrs. W. M. Waters purchased site 25x90 feet and will erect business building.

Tex., Dallas.—Business.—J. L. Tallant will erect five-story business building.

Tex., Dallas.—Business.—P. S. Miller and Edwin Hobby will erect business building.

Tex., Dallas.—Business.—A. H. Davidson will erect business building.

Tex., Fort Worth.—Business.—Fort Worth Stock Yards Co. is planning to construct bridge over Marine Creek and erect two business buildings to span creek; two stories at present, but later will construct two additional stories; 105x125 feet; total cost \$115,000.

Tex., Houston.—Store and Residence.—I. G. Pritchard will erect store and residence; two stories; brick; cost \$10,000.

Va., Newport News.—Sanatorium.—Dr. Jos. Buxton has plans by B. F. Mitchell for erection of hospital; to have tile baths, lavatories and diet kitchens; three stories; brick; ordinary construction; steam heat; electric lighting; cost \$12,000.

Va., Richmond.—Business.—W. J. Ready will erect two-story detached building; cost \$9000.

Va., Warrenton.—Stable.—C. Ullman will rebuild stable reported burned; loss \$2500.

W. Va., Keystone.—Store.—A. L. Calhoun will erect store building to replace structure recently reported burned; two stories; brick.

Ala., West End.—City Hall.—City voted issuance of \$6000 of bonds for completion of city hall, etc. Address The Mayor. (Recently mentioned.)

La., New Orleans.—Park Building.—City will construct building in City Park to be used as pavilion, boathouse, etc.; cost \$25,000 to \$30,000; competitive plans will be invited; C. Dittman, City Park Commissioner, chairman executive committee.

Ola., Anadarko.—City Hall, Fire Station, etc.—City Council invites architects to submit plans and specifications until December 6 for combined city hall, fire station, jail, etc., on lot 50x190 feet; cost not to exceed \$14,000; Charles McKnight, City Clerk.

Va., Warrenton.—City Hall.—City will rebuild city hall recently burned; will contain municipal offices, library, etc. Address The Mayor.

RAILWAY STATIONS

La., Donaldsonville.—Texas & Pacific Railroad, B. S. Wathen, chief engineer, Dallas, Tex., has prepared plans for depot.

Mo., Kansas City.—Kansas City Terminal Co., H. L. Harmon, president, adopted plans by Jarvis Hunt, Dwight Bldg., Kansas City, for proposed passenger station, estimated to cost \$5,700,000. Instead of \$3,000,000 as originally proposed; exterior of building will be of stone and interior of marble and cement; fireproof construction; 150x500 feet; height 120 feet; principal facade is to be dominated by three arches, flanked by two wings; reception-room or lobby, 100x250 feet, surrounded by parallel arch or dome 100 feet high, and surrounded on four sides by baggage-rooms, checkrooms, dining hall, emergency hospital service, etc.; offices in two wings; track level 20 feet below waiting-room; outgoing and incoming trains to be served by subways; elevators. (Noted in August.)

Tenn., Chattanooga.—Grandstand.—Chattanooga Baseball Improvement Co., O. B. Andrews, president, care of Richmond Hosiery Mills, purchased six acres of land for baseball park; will erect grandstand; materials

Mo., St. Joseph.—Chicago, Burlington & Quincy Railroad, W. L. Breckinridge, engineer maintenance of way, Chicago, Ill., it is reported, will erect freighthouse and enlarge terminals, expending about \$1,000,000.

S. C., Spartanburg.—Carolina, Clinchfield & Ohio Railway, M. J. Caples, chief engineer, Johnson City, Tenn., has not yet made plans for freight station recently reported.

Tenn., Lynnville.—Louisville & Nashville Railroad, W. H. Courtenay, chief engineer, Louisville, Ky., purchased site 100 feet square on which to erect depot; to replace structure damaged by cyclone.

SCHOOLS

Ala., Mobile.—Mobile County Commissioners will erect eight-room brick school (to replace present Augusta-street School) and addition to Leinkauf School to be used as auditorium; seating capacity 650; H. T. Inge, Richard Hines, Jr., and H. T. Hartwell, committee.

Ala., West End.—City has voted \$6000 of bonds to erect school and city hall improvements. Address The Mayor. (Recently noted.)

Fla., Jacksonville.—Board of Public Instruction, J. Q. Palmer, superintendent, will soon advertise for bids for erection of proposed Fairfield school; brick; appropriation \$6000.

Fla., Lakeland.—City has voted \$25,000 of bonds for school improvements. Address The Mayor. (Lately mentioned.)

Ga., Americus.—City awarded contract for erection of proposed \$30,000 high school; to accommodate 600 pupils. Address The Mayor.

Ky., Midway.—Board of Education, R. S. Starkes, president, will open bids December 5 for erection of graded school building recently mentioned; two stories; eight rooms, with auditorium; steam heat; cost \$20,000.

La., Covington.—City will erect \$18,000 school building; plans by Jenkins Bros., Covington; two-story-and-basement structure; 12 rooms and auditorium; steam heat; electric lighting; bids to be opened January 8; A. B. Peters, superintendent.

La., Natchitoches.—City voted \$14,000 of bonds for completion of high school. Address The Mayor.

N. C., Franklin.—City will contract for erection of proposed school. Address The Mayor.

N. C., Marshville.—School Board, K. C. Marsh, secretary, awarded contract to Monroe Manufacturing Co., Monroe, N. C., for erection of graded school building previously mentioned; T shape; 67x67 feet; ordinary construction; brick; limestone trimmings; slate roof; steam heat; electric lighting; cost \$10,000; plans by Sayre & Baldwin, Anderson, S. C. (See "Machinery Wanted.")

Okl., Durant.—State Board of Public Affairs awarded contract at \$43,385.40 to Daugherty-Kirby Construction Co., Sulphur, Okla., for erection of State Normal School. (Recently mentioned.)

S. C., Spartanburg.—Wofford College, Henry N. Snyder, president, is planning to erect dormitory.

Tex., Bloomington.—Bloomington School District No. 2 awarded contract at \$2455 to O. R. Cox, Victoria, Tex., for erection of school; frame; two rooms.

Tex., Boerne.—Boerne Independent School District awarded contract at \$13,680 to J. B. Oppert, Comfort, Tex., for erection of proposed stone school.

Tex., Canyon City.—State Board of Education, Austin, Tex., will receive bids until December 3 (change of date) for plans for new West Texas Normal School; plans to call for one building; cost not over \$100,000; three stories; 30 rooms for classes, laboratories and lectures; lecture-room 80x100 feet; gymnasium and swimming-pool, each 40x100 feet, and contains offices for president and secretary, lockers, etc. (Recently mentioned.)

Tex., Gatesville.—Bids Wanted.—Sealed proposals will be received by Scott & Pearson, architects, Waco, Tex., December 6 for the erection and completion, including heating, plumbing and lighting, of two-story brick and stone-trimmed building for State Institution for the Training of Juveniles at Gatesville; certified check, \$500, payable to the order of John H. Boyd; plans and specifications on file at the office of the superintendent of the institution at Gatesville, Tex., and at office of architects, Scott & Pearson, Waco Loan & Trust Co. Bldg., Waco, Tex. (See "Machinery Wanted.")

Tex., Harris County.—Harris County Commissioners, Houston, Tex., are planning to erect two schools in Etta school district; have voted \$10,000.

Tex., Pittsburg.—C. L. Turner, Superin-

tendent of Public Schools, will receive bids until January 10 for erection of school according to plans by and under supervision of William Drago, architect, 715 Hennen Bldg., New Orleans, La.; certified check for 5 percent amount of bid, payable to C. L. Turner; plans and specifications from architect at New Orleans or from C. L. Turner, Pittsburgh, on deposit of \$20.

Tex., Rock Creek, P. O. Garner.—Trustees Rock Creek school district will sell present structure and erect new school.

W. Va., Woodsdale, P. O. Wheeling.—Board of Education of Triadelphia district awarded contract at \$30,810 to Batson-Burton Company, Moundsville, W. Va., for erection of school; two stories; 12 rooms. (Recently mentioned.)

THEATERS

D. C., Washington.—Dr. William P. Herbst, 2500 Pennsylvania Ave. N. W., and Morris Hahn, William Hahn & Co., 233 Pennsylvania Ave. S. E., purchased building 27x110 feet at 2105 Pennsylvania Ave. N. W., and will expand \$6000 in remodeling as theater.

Fla., Tampa.—Governors of Spanish Castle, Ybor City, Tampa, have authorized issuance of \$125,000 of bonds to build two Spanish castles, one in Ybor City to cost \$60,000, and one in West Tampa to cost \$75,000.

Md., Crisfield.—Tawes & Gibson are having plans prepared by Jacob F. Gerwig, 210 East Lexington St., Baltimore, Md., for theater: two stories; 56x160 feet; main auditorium and balcony seating about 1000; two stories, 20x50 feet, on first floor; lodgeroom and offices on second; estimated cost, \$25,000.

Tex., Cleburne.—John W. Floore is interested in erection of \$30,000 opera-house.

WAREHOUSES

Ala., Dothan.—Farmers' Union Warehouse Co. will rebuild cotton warehouse recently reported burned; 120x120 feet; concrete floor; cost \$7000; bids opened December 2.

Fla., Jacksonville.—W. A. Bours & Co. will erect warehouse; three stories; brick; 103x105 feet; estimated cost, \$25,000.

Miss., Gulfport.—Gulfport Grocery Co. reported to contemplate erection of \$5000 frame warehouse.

N. C., Wilson.—Center Brick-Watson Warehouse Co. incorporated with \$100,000 capital stock by N. H. Cozart, W. P. Anderson and others.

N. C., Winston-Salem.—Maline Knitting Mills Co. awarded contract to Fogle Bros., Winston-Salem, for erection of warehouse; 74x150 feet; mill construction; architect, Willard Northrup.

S. C., Greenville.—Union Bleaching and Finishing Co. contemplates building several warehouses; New York office at 53 Leonard St.

Tenn., Knoxville.—William J. Oliver Manufacturing Co. is proceeding with construction of proposed building, 400x50 feet, to be used as warehouse and paint shop for plow department.

Tex., Dallas.—G. H. Schoellkopf sold site 132x166 feet for \$75,000, on which it is proposed to erect seven-story building for exclusive use of cotton buyers.

Tex., Dallas.—E. J. Fry of Marshall, Tex., and Charles Cobb, Jr., awarded contract for erection of warehouse for Texas Glass & Paint Co.; structure is to be three stories and basement, brick, and cost \$46,000, exclusive of elevators, heating plant, plumbing, etc.

Tex., Fort Worth.—Brown Cracker & Candy Co. will enlarge plant by erection of two additional buildings; L. L. Johnson has begun erection of brick office building, 25x100 feet, and brick warehouse, 25x40 feet, for use of company.

W. Va., Martinsburg.—Berkeley Storage Co. incorporated with \$5000 capital stock by W. H. Helston, Daniel J. Helston, John O. Lemen and others.

RAILROAD CONSTRUCTION

RAILWAYS

Ala., Birmingham.—According to an official, the Canton, Vicksburg & Birmingham Railroad Co. is the name of the new corporation proposing to build from Birmingham, Ala., via Canton and Macon, Miss., to Vicksburg, Miss., about 200 miles, and it is expected to begin surveys in about 30 days. W. H. Hudson of Hazlehurst, Miss.; W. A. Wall of Meridian, Miss., and William Cornell of Lake, Miss., are incorporators.

Ala., Mobile.—The New Orleans, Mobile & Chicago Railroad Co., which is to take over the Mobile, Jackson & Kansas City Railroad,

has been incorporated at Mobile with \$1,250,000 capital. The officers elected are J. C. Rich, president; W. F. Owen, general manager and chairman of the board of directors; George W. Crary, secretary and treasurer; Homer M. Hood, vice-president; Henry F. Rucker, assistant secretary and treasurer. The road has also been incorporated in Mississippi and Tennessee, the northern end extending to Jackson in the latter State, about 50 miles from the Mississippi boundary.

Ala., Mobile.—The organization of the New Orleans, Mobile & Chicago Railroad Co., capital \$15,000,000, to take over the Mobile, Jackson & Kansas City Railroad, has been authorized in Mississippi. The incorporators are Millard C. Humstone and Morton C. Bogue of New York, J. N. Flowers, A. H. Whitfield, Jr., and R. V. Fletcher of Jackson, Miss. The line in Mississippi is from Brumfield, near the Tennessee boundary, to Latonia. Directors are reported elected thus: George W. Crary, H. M. Hood, W. L. O'Dwyer and H. S. Ricker, all of Mobile, Ala.

Ark., Waldron.—An officer denies the press report that the Kansas City Southern would survey to improve the Arkansas & Western Railroad preparatory to building an extension to Little Rock.

Fla., Ocala.—The Tampa & Jacksonville Railway proposes to build from Fairfield to Ocala, Fla., 14 miles, and from Fairfield to Dunnellon, Fla., 28 miles. A. L. Glass is general superintendent at Gainesville, Fla.

Fla., Tampa.—The Tampa & Gulf Coast Railway is reported to have finished grading and is now laying track on its extension from Odessa to Tarpon Springs, 10 miles.

Ga., Hawkinsville.—Application has been made to charter the Hawkinsville & Western Railroad Co. to build a line from 15 to 50 miles long from Hawkinsville to Perry or Fort Valley, to Vienna or Unadilla or to Montezuma, Ga.; capital \$100,000; headquarters at Hawkinsville. The incorporators are T. B. Ragan, J. F. Coney, W. N. Parsons, E. J. Henry, Morgan Thompson, N. A. Jelks, J. J. Whitfield and others of Hawkinsville, with others of Pulaski, Crisp, Macon, Dooley and Houston counties.

Okla., Beaver City.—J. M. Kerns, general manager of the Beaver Valley & Northwestern Railroad Co., writes that it is proposed to begin construction January 1 and that the company is ready to receive bids for grading, machinery, equipment, rails, ties, etc.

Okla., Chickasha.—The Chickasha Terminal Railway Co., capital \$10,000, has been chartered to build a terminal railroad at a cost of \$100,000. The incorporators are Doctor Carter, C. E. Nelson, G. H. Parker, B. M. Haile, M. McMillan and W. H. Sparger, all of Purcell, Okla., and J. M. Aydelotte of Shawnee, Okla.

Okla., El Reno.—The El Reno Interurban Railway Co., it is reported, has let contract to build line from Yukon to El Reno to the Adams Construction Co. of El Reno; work begun. The proposed line is from El Reno to Oklahoma City, 25½ miles.

Okla., El Reno.—The Caddo Construction Co., capital \$250,000, will, it is reported, be incorporated to build a railroad between El Reno and Anadarko, Okla. Survey is being made. The El Reno Industrial Co., of which Mr. Schofield is president, is interested.

Okla., Muskogee.—The Muskogee, Hartshorne & Southern Railroad Co. has been chartered to build a line 180 miles long from Muskogee, Okla., to Paris, Tex.; capital \$100,000; estimated cost of line, \$6,500,000. The incorporators and directors are H. R. Blauvelt, J. E. Armstrong, R. F. Goff of Oklahoma City, A. D. Dailey and C. R. Day of Edmund, Okla.

Okla., Nowata.—W. V. Thraves, president and general manager of the Coffeyville-Nowata Railway & Power Co. of Nowata, Okla., is reported as saying that the line will be 22 miles long, connecting Nowata, Delaware, Lenatah and South Coffeyville, Okla., and Coffeyville, Kans., and it is expected to begin construction by January 1; capital \$20,000. E. P. Hannaford of Nowata is chief engineer.

S. C., Florence.—S. S. Ingman, one of the incorporators, is reported as saying that the Black Creek Power Co. expects to construct a 12-mile railway from Florence to Darlington; capital \$300,000. J. L. Barringer is president, P. A. Wilcox vice-president, A. J. Brown secretary and treasurer, all at Florence; S. S. Ingman, general manager at Columbia, S. C.

Tenn., Crandall.—The Crandall & Shady Valley Railroad Co. of Johnson county, capital \$10,000, has been chartered to build a line from Crandall up Beaver Dam Creek to the summit of Cross Mountain in that country. The incorporators are R. E. Donnelly, H. A. Donnelly, R. E. Butler, D. H. Donnelly, W. T. Smythe.

Tenn., Jamestown.—The Middle Tennessee Railroad Co. has amended its charter to build an extension to Mount Pleasant, Tenn.

Tenn., Knoxville.—A press report quotes an officer of the Knoxville, Sevierville & Eastern Railway as saying that an extension is projected from Sevierville, Tenn., to

to build the proposed line, about 7½ miles long. The Manning, Wellman & Judd Construction Co., of which Alvin Manning of Ottumwa is president, has been formed. The line will also reach Radium Springs.

Mo., St. Louis.—With reference to the report that part of the new bond issue of the Missouri Pacific Railway would be used for improvements an officer says that no definite work has yet been authorized.

Mo., St. Joseph.—The Chicago, Burlington & Quincy Railroad, it is reported, will build a new freighthouse and enlarge its terminals at St. Joseph at a cost of about \$1,000,000. T. E. Calvert is chief engineer at Chicago, Ill.

Mo., Versailles.—The Versailles & Sedalia Railroad, it is reported, will, according to a report quoting an officer, build an extension from Ouachita to Sedalia, 26 miles. R. E. Bradford is president and general manager, 606 Century Bldg., St. Louis, Mo.

N. C., Caroileen.—The Henrietta Mills of Caroileen, it is reported, is building a short-line railroad to connect with the Carolina, Clinchfield & Ohio Railway and the Southern Railway.

N. C., Lumberton.—The Virginia & Carolina Southern Railway, it is reported, contemplates an extension to Elizabethtown, J. F. L. Armfield of Fayetteville, N. C., is president.

N. C., Washington.—W. E. Jones, general manager of the Washington Investment Co., is reported as saying that construction of its railway has ceased and the company desires to sell its franchise to someone who will complete the road, which is to extend from Washington to Suburban Park, more than four miles. Considerable grading has been done and most of the poles are placed.

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MANUFACTURERS' RECORD.

85

Cleveland, S. C., 115 miles. W. A. Seymour, Knoxville, Tenn., is chief engineer.

Tenn., Memphis.—The Lakeview Traction Co. is reported to have let contract for a \$20,000 bridge to the Joliet Bridge Co.

Tenn., Memphis.—An official confirms the report of charter of the Pascagoula, Meridian, Memphis & Panama Railroad & Steamship Co. to build a line 350 miles long from Pascagoula, Miss., to Memphis, Tenn., via Hattiesburg, Lake, Ethel and Taylor, Miss. The incorporators include W. H. Hudson, Hazlehurst, Miss.; William Cornell of Lake, Miss., and W. A. Wall of Meridian, Miss.

Tenn., Nashville.—The Rodes-McDowell Construction Co. has been chartered to build railroads and do other work; capital \$10,000. The incorporators are J. E. Rodes, J. R. McDowell, A. S. McDowell, W. C. Rodes and P. M. Estes.

Tenn., Newport.—The Tennessee & North Carolina Railroad will, it is reported, build an extension from its terminus at Waterville, N. C., 21 miles from Newport, to Canton, N. C., along the Pigeon River. A. J. McMahon is superintendent at Newport, Tenn.

Tex., Bartlett.—An officer of the Bartlett-Florence Railway Co. confirms the report that it is proposed to build from Bartlett to Rockdale, Tex., 28 miles, which will include five small wooden trestles. The Bowers Construction Co. of Bartlett, Tex., has the contract, and George D. Fairtrace, assistant chief engineer, is engineer in charge. Grading is completed for 20 miles on the western division.

Tex., Brady.—The Gulf, Colorado & Santa Fe Railway is reported preparing an amendment to its charter to build a line from Lometa to Brady, about 75 miles, and from there to the Concho county boundary, about 28 miles farther. C. F. W. Felt is chief engineer at Galveston, Tex.

Tex., Brownsville.—L. H. Hallam, secretary of the Hallam Colonization Co., is quoted as saying that construction of its proposed railway will begin as soon as franchise is granted, three miles of line to be in Brownsville and five miles through the company's lands in West Brownsville and Riverview Place. Electric cars may be operated in the city and gasoline cars in the suburbs.

Tex., Clarksville.—The Oklahoma, Red River & Texas Railway Co. has filed charter to build a line 80 miles long from Blossom, Tex., to Mineola, Tex. The incorporators are C. P. Moore, Frank Miesch, James T. Brown, J. L. Skinner, John T. Upchurch, John Miesch, E. L. Canterbury, W. H. Dickson and Roscoe Johnson.

Tex., De Leon.—C. H. Sharman, chief engineer of the Texas Central Railway, is reported surveying for an extension from De Leon to Rising Star, Tex.

Tex., Floydada.—Tracklaying is reported under way on the Llano Estacado Railroad from Plainview to Floydada, 26 miles, and four miles have been completed. W. M. Masie is president at Floydada.

Tex., Haskell.—M. R. Hemphill is reported as saying that he proposes to build a gasoline-motor car line from Haskell to Hemphill Park, 8 miles, if a bonus is granted.

Tex., Mineral Wells.—Contract is reported signed for the proposed Mineral Wells & Northwestern Railway, an electric line to be built between Fort Worth and Mineral Wells, about 55 miles. James A. Watkins, Paul Hurley and others of Fort Worth are interested.

Tex., Rockland.—An officer of the Burr's Ferry, Brownell & Chester Railway Co. denies the press report that it was building toward Jasper, Tex. Grade and bridges have been completed for about two years between Turpentine and Brownell, Tex., but it is not known when track will be laid.

Tex., San Antonio.—The Metropolitan Steam & Electric Railway Co., which proposes to build electric railways connecting San Antonio, New Braunfels, Seguin, Lockhart, Gonzales and Austin, 80 miles, has been chartered in Delaware with \$100,000 capital. John G. Marmon of San Antonio, Tex., is president; E. L. Squire of Wilmington, Del., vice-president; M. Kaufman, secretary and treasurer, Yorktown, Tex. Charles H. Russell is making surveys, and ultimately the line may be extended from Austin to Houston, Tex.

Tex., Stamford.—L. M. MacArthur, general manager and chief engineer, is reported as saying that the electric line between Stamford and Anson, Tex., will be about 19 miles long, and considerable work has been done. His home address is Cumuripa, Sonora, Mexico.

Tex., Sugarland.—The Sugarland Railway will build next year from Ramsey Farm to House, 30 miles, and the Imperial Valley Railway, controlled by the same interests,

contemplates building from Harlem Farm to Hempstead, Tex., 60 miles. N. V. Truly is general manager at Sugarland, Tex.

Tex., Sugarland.—The Sugarland Railway is reported to have let contract for extending 40 miles. W. T. Eldridge is president at Sugarland, Tex.

Tex., Texas City.—The Texas City Transportation Co. is reported to have issued another \$1,000,000 of bonds for its construction work, consisting of terminal tracks, warehouses, grain elevators, dock and piers.

Va., Colonial Beach.—Franchise is reported granted for four miles of electric railway, between Colonial Beach and Classic Beach, to John G. Capers, Washington, D. C. The line may be ultimately extended to Petersburg, Va.

Va., Monterey.—The Virginia Western Railway Co. has been chartered to build the Virginia end of the proposed line from Clifton Forge, Va., to Keyser, W. Va., about 186 miles. The line will be about 100 miles long in Virginia, and will cross the boundary in Highland county. The incorporators include J. J. Stoutenburg, president; A. V. Huyley, vice-president; V. M. Bovle, secretary, and J. G. Ropes, treasurer, all of New York, who are directors, besides B. H. Hiner of Franklin, W. Va.; H. H. Byrd and James M. Douglas of Warm Springs, Va., and C. M. Lunsford of Monterey, Va. President Stoutenburg is reported as saying that bids will be asked immediately, and construction is expected to begin next spring, the estimated cost of the line being \$10,000,000.

Va., Richmond.—The Chesapeake & Ohio Railway is reported to have let contract to the Matthews-Curtis Company of Clifton Forge, Va., for building 10 miles of second track between Providence Forge and Elko. W. Va., Berwind.—The Norfolk & Western Railway, according to a dispatch from Tazewell, W. Va., announces that it has prepared plans for an extension from Berwind along Cavetts Creek to a point near Tazewell, 27 miles, and surveys have been made, but bids are not yet requested. C. S. Churchill is chief engineer at Roanoke, Va.

W. Va., Fairmont.—The Fairmont & Northern Railway, according to a dispatch, has let contract to Robert F. Talbott & Bros. for grading and masonry on the line from Belleview to Grantown, seven miles. This will complete the line from Belleview via Grantown to Fairview, 12 miles.

W. Va., Princeton.—The Virginian Railway Co. is reported to have purchased the Bluestone Land & Lumber Co.'s railroad, connecting at Princeton and about 20 miles long to the mouth of Laurel Creek. It may be extended. It is also reported that the company has let contract for an extension from Pemberton toward Beckley, W. Va., five miles. H. Fernstrom is chief engineer at Norfolk, Va.

STREET RAILWAYS

Fla., Pensacola.—The Pensacola Development & Construction Co. has applied for the right to build a street railway.

Fla., Pensacola.—The Pensacola Electric Co. is reported, may build, in connection with the Pensacola Investment Co., an extension of two miles.

Ga., Waycross.—Franchise is reported granted to the Waycross Gas, Electric & Railway Co. G. W. Deen of Waycross is president.

La., Lake Charles.—The Lake Charles Railway & Light Co. has begun operation of its extension to the Hill-Mount addition.

Okla., Tulsa.—L. J. Downey has applied for a franchise to build an electric street railway and power system.

Okla., Oklahoma City.—Contract is reported let to J. R. Alley of Oklahoma City for a 10-mile extension of the Oklahoma Railway from Capitol Hill to Moore, Okla.

Tex., Corpus Christi.—The Corpus Christi Street Railway has completed 25 blocks of track, and it is expected to finish the line by February 1, but cars may be operated on part of it by Christmas.

Tex., Houston.—The Houston Electric Co. is reported, will make several improvements and extensions besides building second track. David Daly is general manager.

Tex., Port Arthur.—The Port Arthur Traction Co. is reported to have asked bids for grading its line from the city limits along the 7th-St. extension to the docks and the Gulf refinery.

Removes Its Offices.

The Connors-Weyman Steel Co. announces that it has moved its offices to 551 and 552 Brown-Marx Bldg., Birmingham, Ala., to which address all communications for the company should be sent.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery and supplies wanted.

Automobile Accessories.—Raleigh Motor Car & Machine Co., 109 East Morgan St., New Orleans, La., in market for automobile accessories.

Bank Fixtures.—See "Bank and Office Buildings" under Tex., Sherman.

Bannister Posts.—See "Woodworking Machinery, etc."

Bath Fixtures.—B. S. Smith, Mexia, Tex., wants bath fixtures.

Belt Machinery.—See "Underwear Machinery and Material, etc."

Bolts.—See "Construction Materials."

Brewing Machinery.—Oduflo Cardoso, Capital de Goyaz, Brazil, wants catalogues, prices and other data on brewing machinery; contemplates installing plant of 500 to 1000 quarts capacity; requests correspondence in Spanish and French.

Brick and Granite Blocks.—W. B. Ferguson & Co., Suffolk, Va., want addresses of manufacturers of brick and granite blocks.

Bridge.—W. J. Edwards, president Gulf Line Railway Co., Sylvester, Ga., wants prices on a span or part wood and span highway bridge; not railroad bridge; to span river about 40 feet wide.

Bridge Construction.—Hillsboro County Commissioners, Tampa, Fla., will receive bids until December 7 for construction of steel drawbridge across Hillsborough River; plans and specifications on file in Circuit Court Clerk's office and can be had on application to County Commissioners.

Bridge Construction.—P. St. J. Wilson, State Highway Commissioner, Richmond, Va., will receive bids until December 11 for construction of steel bridge across Slate River, in Buckingham county, Virginia; plans and specifications on file in above office and of clerk of Buckingham county, Buckingham, Va.; certified check, \$250.

Bridge Construction.—Bids will be received by Commissioners' Court of Bee County, Beeville, Tex., for construction of steel bridge over Aransas Creek on Skidmore & Saunders' Store road as per plans and specifications on file with County Judge; Dan Troy, County Clerk.

Buhrstone.—See "Meal Mill."

Building Materials.—G. M. Tucker, Monroe Manufacturing Co., Monroe, N. C., wants slate, cement, lime, etc.

Building Material.—Z. V. Pate, Gilson, N. C., wants prices on lime, brick, cement, metal ceiling, roofing, etc.

Building Material.—A. J. Wedderburn, 306 9th St., Washington, D. C., wants prices on building materials for 18-room fireproof concrete dwelling.

Canal Construction.—Proposals for excavating canals in Everglades Draining District will be received until December 22; each proposal to cover excavation of 300 linear miles of canal 40 to 100 feet wide and 6 to 10 feet deep, or such other width or depth as trustees may determine upon, price per cubic yard of excavation and time bidder will be ready for actual work; successful bidder will be required to give sufficient bond under contract to complete work within time limit; price agreed upon per cubic yard to be paid in cash as work progresses; contractor to furnish everything required and no advance payments to be made; trustees reserve right to contract for more or less excavating, not less than 100 miles, and to reject any and all bids; bids to be addressed to Gov. A. W. Gilchrist, chairman of Internal Improvement Fund of Florida, Tallahassee, Fla., and marked plainly "Proposals for Drainage;" W. M. McIntosh, Jr., secretary. (Bidders can examine similar work already completed and report of United States engineer of Washington, D. C.; engineer in charge for State of Florida is P. F. Jenkins of Miami, Fla.)

Car.—Pennsylvania Equipment Co., 129 West End Trust Bldg., Broad and South Penn Sq., Philadelphia, Pa., wants private car, inside measurement 65 to 70 feet, with single sleeping accommodations for about 10 persons.

Castings.—See "Construction Materials."

Castings, etc.—Bids will be received at office of General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until December 20 for finishing steel and manganese steel castings, wire rope, chain, sheet tin, saws, etc. Blanks and general information relating to Circular No. 545 may be obtained at above office or office of assistant purchasing agents, 24 State St., New York; 55 Realty Bldg., New Orleans; 1086 North Point St., San Francisco, Cal.; also from U. S. Engineer office in following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, St. Paul, Detroit, Milwaukee, Chicago, St. Louis, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City; Chamber of Commerce, Quincy, Ill., and Chamber of Commerce and Board of Trade, Tacoma, Wash.; F. C. Boggs, Captain, Corps of Engineers, U. S. A., General Purchasing Officer.

Cement.—See "Construction Materials."

Cement.—See "Building Materials."

Columns.—See "Woodworking Machinery, etc."

Concrete Cisterns.—Bids will be received by Constructing Quartermaster, Fort Moultrie, S. C., until December 9 for constructing seven reinforced concrete cisterns; certified check for \$10 to be sent to Constructing Quartermaster to secure plans, etc.

Construction Materials.—Alsop & Pierce, 18 First National Bank Bldg., Newport News, Va., want timber, piles, cement, stone, gravel, brass and galvanized bolts, castings, etc.

Cotton Gin.—Butler & Rousseau, Paint Rock, Ala., will probably buy 3-70-saw gin outfit in spring of 1910.

Crematory.—City of Birmingham, Ala., Frank P. O'Brien, Mayor, will receive estimates on crematory of 100 tons daily capacity.

Creamery.—Bellville Promoting Co., W. A. Mattheai, secretary, Bellville, Tex., wants prices on creamery plant.

Cutting Shears.—Pennsylvania Equipment Co., 129 West End Trust Bldg., Broad and South Penn Sq., Philadelphia, Pa., wants heavy cutting shear, to cut 8 feet long up to three-sixteenths or one-eighth thick sheet metal.

Drill.—Maryland Equipment & Supply Co., 142 Equitable Bldg., Baltimore, Md., in market for core drill with either a steel bit or diamond bit, operated by hand-power for 300-foot hole, with necessary pipe; prefer second-hand rig in good condition.

Dyeing and Cleaning Supplies.—Henry Rogers, 811 Camp St., New Orleans, La., wants to correspond with dealers in dyehouse and cleaning supplies.

Dyeing Machinery.—E. M. Huffman, Box 563, Huntington, W. Va., wants to correspond with manufacturers of dyeing and pressing machinery.

Egg Powder.—E. Assenmacher, 64 Rue du Marche, Brussels, Belgium, wants addresses of manufacturers of egg powder.

Electric Hoist.—Hobbs-Ives Equipment & Machinery Co., Seaboard Bank Bldg., Norfolk, Va., wants 10-horse-power electric hoist; alternating current; 230 volts.

Electric-Light Plant.—Bellville Promoting Co., W. A. Mattheai, secretary, Bellville, Tex., will consider plans and specifications on installation of electric-light plant of 700 lights.

Electric Lighting.—See "Bank and Office Buildings" under Tex., Sherman.

Electric-Lighting System.—Office of Constructing Quartermaster, Washington, D. C. (Takoma Substation). Proposals will be received until December 27 for construction of electric-lighting system at Fort Washington, Md.; information on application; plans and specifications may be seen at above office; a deposit of \$10 required for each set of plans. Address Capt. H. L. Pettus, Constructing Quartermaster.

Electric Wiring.—See "Government and State Buildings" under Tex., San Antonio.

Electrical Machinery.—A. V. Kaiser & Co., 739 Drexel Bldg., 5th and Chestnut Sts., Philadelphia, Pa., want second-hand General Electric or equal 300-kilowatt 60-cycle three-phase 600-volt direct-connected rotary converter with transformers to step down from 2300 volts, 60 cycles, three phase, to voltage required by the rotary; mail details, price and photograph and where can be seen.

Electrical Supplies.—Jemmar Supply Co., 510 Chamber of Commerce Bldg., Birmingham, Ala., wants catalogues and discounts on electrical supplies; will consider agents on exclusive basis.

Elevator.—Z. V. Pate, Gibson, N. C., wants prices on elevators.

Elevator.—Glasscock Store & Manufacturing Co., Greensboro, N. C., will want hand elevator, one ton capacity.

Elevator.—Teasly & Riden, Box 658, Tampa, Fla., want prices on passenger elevator with five-horse-power motor.

Elevators.—See "Bank and Office Buildings" under Tex., Sherman.

Feed-mill Machinery.—Winters Mill & Elevator Co., J. H. Burnet, president, Winters, Tex., will open proposals in 30 days for feed-mill machinery.

Fountains.—S. D. Hawley, Elks' Building Association, Tulsa, Okla., wants prices on four fountains for cafe.

Furniture.—W. O. Smith & Co., 23 Produce Exchange, New York, want catalogues, prices and terms on cheap grades of "E. D." furniture for South African trade.

Gas Engines.—See "Water-works."

Glass Plant.—C. C. MacKee Company, manufacturers' agent, Hongkong, China, wants prices and literature for complete equipment to make window-glass, mirror plates, lamp globes, shades, etc.; price of outfit not to exceed \$40,000; also wants prices of erector for six months and of operatives to teach proper glassmaking methods.

Glass Rubber.—Gillespie Bros. & Co., 4 Stone St., New York, want samples and prices on glass rubber (thin wire mesh covered with transparent rubber composition.)

Granite Blocks.—See "Brick and Granite Blocks."

Hardware.—S. M. Pamfilis, 10 Diamond Sq., Pittsburgh, Pa., wants to represent American manufacturers of hardware in Greece.

Heating.—Bids will be received at office of Scott & Pearson, architects, Waco Loan & Trust Co. Bldg., Waco, Tex., for erection of heaters, plumbing and lighting two-story building at State Institution for the Training of Juveniles at Gatesville, Tex. (See "Schools.")

Heating Equipment.—See "Government and State Buildings" under Tex., San Antonio.

Heating Plant.—R. M. London, Rock Hill, S. C., wants prices on steam-heating plant.

Heating Plant.—See "Bank and Office Buildings" under Tex., Sherman.

Hoisting Engines.—Jefferson Iron Co., 35th Ave. and 32d St., North Birmingham, Ala., wants agency for hoisting engines.

Hooks.—"Collar Pad Hooks," care of Manufacturers' Record, Baltimore, Md., wants addresses of manufacturers of horse-collar pad hooks.

Household Novelties.—W. O. Smith & Co., 23 Produce Exchange, New York, want catalogues, prices and terms on household novelties for South African trade.

Hulling and Recleaning Machinery, etc.—George Giles & Co., Ocala, Fla., want bean or pea huller; also fan with sacker attachment for recleaning and sacking beans and peas.

Ice Machinery.—Bellville Promoting Co., W. A. Matthaei, secretary, Bellville, Tex., wants prices on ice plant of 10, 15 or 20 tons capacity.

Iron Shears.—Thornhill Wagon Co., Lynchburg, Va., wants iron shears to shear iron cold 4x% inches.

Ironworking Machinery.—See "Planer."

Lath Mill.—J. G. White, Grover, N. C., wants prices on new or second-hand lath mill.

Lathe.—W. R. Blake, Sidney, Ohio, wants second-hand gap lathe.

Levee Construction.—Bids will be received at office of N. B. Kavanaugh, secretary Levee Board, Charleston, Mo., until December 31 (extended date) for construction of eight miles of levee in Scott county, Missouri; about 175,000 cubic yards. Apply to A. J. Wheeler, engineer, Charleston, Mo., for plans and specifications.

Lighting.—See "Heating."

Lighting Fixtures.—S. D. Hawley, Elks' Building Association, Tulsa, Okla., wants prices on two combined gas and electric chandeliers for \$50,000 Elks' Club and Home building. (Special design.)

Locomotive.—Tatum Lumber Co., Hattiesburg, Miss., wants new 50 to 60-ton locomotive, Mogul, with airbrakes.

Locomotive.—Withers Foundry and Machine Works, Empire Bldg., Atlanta, Ga., wants locomotive to repair in shop; must be 8-wheel passenger, 17 or 18-cylinder, with

50, 56 or 60-wheel center; full particulars in first letter.

Locomotive.—White Rock Sand & Gravel Co., Alf A. Edwards, president, Waco, Tex., wants second-hand railroad locomotive.

Lumber.—U. S. Engineer Office, Nashville, Tenn. Proposals for furnishing and delivering 883,761 feet board measure long-leaf yellow-pine lumber will be received until December 27; information on application; Wm. W. Harts, Major, Engineers.

Macaroni Machinery and Supplies.—S. Ormsby, 1815 West Broad St., between 35th and 36th Sts., Savannah, Ga., wants prices on new or second-hand machinery for macaroni plant; also supplies, including labels, packing boxes, etc.

Machinery.—S. M. Pamfilis, 10 Diamond Sq., Pittsburgh, Pa., wants to represent light machinery manufacturers in Greece.

Mantels.—S. D. Hawley, Elks' Building Association, Tulsa, Okla., wants prices on three mantels for \$50,000 Elks' Club and Home building.

Meal Mill.—Samuel Davis, Clarksville, Va., wants agent's price on horizontal burrstone meal mill; from about 24-inch stone; suitable for 10-horse-power International engine.

Metal Box Covers.—W. P. Monroe, Wilmington, N. C., wants to correspond with manufacturers of screw-top metal covers for polish.

Metal Ceiling.—See "Building Material."

Paint.—S. M. Pamfilis, 10 Diamond Sq., Pittsburgh, Pa., wants to represent American paint manufacturers in Greece.

Paper Bags.—A. V. Mandry & Co., 157 Congress St., Brooklyn, N. Y., wants to correspond with manufacturers and jobbers of paper bags; sizes of bags, ½-inch up to 25-inch; also millinery bags in all sizes.

Paving.—Thomas W. Smith, Mayor, Huntsville, Ala., will receive bids until December 28 to pave, curb and otherwise improve Church St.; 20,000 yards of pavement; 10,000 feet of curb and gutter; specifications, plans, surveys and grade on file in office of street superintendent; specifications, plans, etc., furnished on request; bids will be received on asphalt, sheet asphalt with paint coat, sheet asphalt with binder course, bitulithic, wooden block, vitrified brick and Blome granitoid cement pavement.

Paving.—Magnolia Park Land Co., M. S. Waller, secretary, Houston, Tex., will open bids December 4 for construction of 6000 linear feet of cement sidewalks in Magnolia Park; plans and specifications on file at office of Ollie J. Lorehn, architect, Temple Bldg., Houston, where plans and specifications are on file.

Paving.—City of St. Petersburg, Fla., W. J. Overman, City Engineer, will receive bids until December 15 for 15,000 square yards brick paving and 2270 linear feet granite curbing.

Paving.—City Secretary, Houston, Tex., will receive bids until December 13 for paving Main, San Jacinto, Travis and Washington streets with vitrified brick; plans and specifications on file in office of City Engineer; certified check, \$250; H. B. Rice, Mayor.

Paving-plant Machinery.—City of Birmingham, Ala., Frank P. O'Brien, Mayor, will receive estimates on machinery for paving plant of 1000 yards daily capacity.

Planer.—Herring & Hall, Garland, N. C., wants second-hand planer.

Planer.—Box 673, Greensboro, N. C., wants second-hand ironworking planer; medium size.

Plumbing.—See "Heating."

Portable Houses.—Interstate Realty & Improvement Co., 419 Lincoln Trust Bldg., St. Louis, Mo., wants prices and other data on portable houses.

Pressing Machinery.—E. M. Huffman, Box 563, Huntington, W. Va., wants to correspond with manufacturers of pressing and dyeing machinery.

Pumps.—See "Water-works."

Punch and Shear.—Box 673, Greensboro, N. C., wants second-hand punch and shear with throat not less than 36 inches to punch as heavy as half-inch iron.

Punching Presses.—A. V. Kaiser & Co., 739 Drexel Bldg., 5th and Chestnut Sts., Philadelphia, Pa., want washer punching presses in first-class second-hand condition, weighing 1500 to 2000 pounds; mall details, maker's name, price, photograph, and state where can be seen.

Railroad Construction and Equipment.—Beaver Valley & Northwestern Railroad Co., J. M. Kerns, general manager, Beaver, Okla., will receive bids on equipment, rails, ties, grading machinery, etc., for construction of road.

Rails.—F. B. Crowell, chief engineer Gulf Line Railway Co., Fourth National Bank Bldg., Atlanta, Ga., wants best delivery and prices on 2000 tons of good conditioned standard section relaying No. 1 open-hearth steel rail, 60 pounds per yard, subject to Hunt's inspection.

Rails.—Joseph E. Bowen, 901 Bank of Commerce Bldg., Norfolk, Va., wants six miles 30-pound relayers for prompt shipment.

Rails, etc.—Tampa & Jacksonville Railway, A. de Sola Mendez, vice-president, Gainesville, Fla., in market for 10 miles of 60-pound rails and 12 to 15 frogs and switches; prefers relayers with angle bars attached.

Railroad Construction.—Prince George's County Commissioners, Henry St. J. L. Briscoe, clerk, Upper Marlboro, Md., will open bids December 7 for grading and macadamizing one mile of Suitland road; proposals to be made on forms furnished by State Geological Survey Commission, to be obtained through its office in Baltimore, Md.; steam roller and stone crusher will be furnished contractor by county; plans and specifications on file in office of County Commissioners; certified check, \$200.

Road Construction.—Office of State Highway Commission, Richmond, Va. Bids will be received until December 11 for construction of macadam road from Pulaski, Va., to macadam road in Pulaski county, Virginia, distance of 2.6 miles; plans and specifications on file at above office and Clerk's office in Pulaski; specifications furnished on application to office; certified check for \$250; engineer will be at Pulaski December 1 to go over road with prospective bidders; P. St. J. Wilson, State Highway Commissioner.

Safe.—Amarillo National Life Insurance Co., C. J. Brothers, secretary, Amarillo, Tex., will buy safe.

Sash and Doors.—E. S. Smith, Mexia, Tex., wants sash and doors.

Sawmill.—J. C. Pass, Roxboro, N. C., wants equipment of new or second-hand woodworking machinery, including sawmill, planing mill, resaw, etc.

Sawmill.—D. H. Greene, Callison, N. C., wants six-foot band mill and three-block carriage.

Sawmill.—J. G. White, Grover, N. C., wants prices on new or second-hand small sawmill.

Sewer Construction.—J. M. Gannaway, City Clerk, McAlester, Okla., will receive bids until December 6 for furnishing materials and constructing various sewers; length of sections 720, 4501.1, 730, 1055.5, 1425.7, 1396, 1271, 1982 and 700 linear feet; all eight-inch vitrified tile sewers, except last-named section, which is to be of six-inch cast-iron pipe; engineer's estimate of cost \$1 per linear foot; plans, profiles, specifications and plats of City Engineer on file with City Clerk; certified check for 10 per cent. of amount bid to accompany each proposal.

Sewer Construction.—Bids will be received at office of Bob Parman, City Clerk, Oklahoma City, Okla., until December 13 for construction of lateral sewer in Bellemont, Epworth View and Military Park additions; also, until same date, for construction of Military Ave. main storm sewer, and until December 20 for construction of Deep Fork sewerage disposal works and septic process; plans, specifications, etc., on file in office of City Clerk; certified check for 3 per cent. of bid to accompany each proposal.

Sewer Construction.—Commissioners of Sewerage, P. L. Atherton, chairman, 605 Equitable Bldg., Louisville, Ky., will open bids December 17 for construction of 21st-street sewer, contract No. 58; work consists mainly of constructing 2180 feet of 60-inch reinforced concrete sewer, including 3746 feet of earth excavation from 7 to 30 feet deep; about 970 cubic yards of reinforced concrete, 520 cubic yards unreinforced concrete and 60,000 pounds steel reinforcement; plans and

Shifting and Pulleys.—See "Woodworking Machinery, etc."

Shuttle Machinery.—Paul Danner, care of Mobile Coal Co., Mobile, Ala., wants to correspond with manufacturers of machinery for making shuttle for cotton mill.

Slate.—See "Building Materials."

Staves.—W. O. Smith & Co., 23 Produce Exchange, New York, want catalogues, prices and terms on oak staves for South African trade.

Steam Shovel.—W. J. Edwards, president Gulf Line Railway Co., Sylvester, Ga., wants 40 to 50-ton rebuilt steam shovel; 1½ to 2½-yard bucket.

Steam Shovel.—White Rock Sand & Gravel Co., Alf A. Edwards, president, Waco, Tex., wants 90-ton steam shovel.

Steam Shovels.—M. T. Singleton, general superintendent Pigeon Mountain Iron Co., Lafayette, Ga., will want two or more light revolving steam shovels for stripping.

Steel Drydock.—Mississippi River Commission, Third District, Vicksburg, Miss. Proposals for construction and delivery of steel floating drydock will be received until January 5; information furnished on application; Clarke S. Smith, Captain, Engineers.

Store Fixtures.—Z. V. Pate, Gibson, N. C., wants prices on cash railway system, clothing cabinets, hat cases, etc.

Telephone System.—S. D. Hawley, Elks' Building Association, Tulsa, Okla., wants prices on interconnecting telephone system for \$50,000 Elks' Club and Home building.

Underwear Machinery and Material, etc.—"Subscriber," Box 519, Atlanta, Ga., wants catalogues and prices on equipment and material for manufacturing suspenders, belts, neckwear, handkerchiefs, shirts, underwear, etc.

Unloaders.—W. J. Edwards, president Gulf Line Railway Co., Sylvester, Ga., wants ballast plow unloaders, center and reversible; also Lidgerwood unloader, without boiler, for unloading 10 cars of 10 yards capacity each; should be double engine, 10 to 12-inch cylinders, with cable for 10 standard flat cars.

Valves.—Proposals will be received at Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until December 7 to furnish at U. S. Naval Academy, Annapolis, Md., quantity of glass valves. Applications for proposals should refer to Schedule 1976. Blank proposals furnished upon application to Navy Pay Office, Baltimore, Md., or to bureau; E. B. Rogers, Paymaster-General, U. S. N.

Wagon Parts.—W. O. Smith & Co., 23 Produce Exchange, New York, want catalogues, prices and terms on spokes, hubs, felloes, etc., for South African trade.

Water-works.—City of Atlanta, Tex., invites bids for furnishing pumps, gas engine, etc., and construction of water-works system. For particulars address Hugh Carney, City Secretary.

Woodworking Machinery.—Sharptown Yacht Building Co., B. H. Phillips, president, Sharptown, Md., wants planer, joiner, band saw and other woodworking machinery.

Woodworking Machinery.—See "Sawmill."

Woodworking Machinery.—See "Shuttle Machinery."

Woodworking Machinery, etc.—Frank S. Drury, Morganton, N. C., wants prices on new or second-hand lathe, resaw, planer, shingle mill, machine to run augur and drill, and line shaft and pulleys; wants prices on columns, posts for bannisters, timber for boxes, etc.; also information as to profitable line of woodwork.

INDUSTRIAL NEWS OF INTEREST

Want's Interest in Factory.

A young man with capital desires to purchase an active interest in a manufacturing enterprise in or near New York. Correspondence is invited by "C. M. F." care of Manufacturers' Record, 52 Broadway, New York.

To Introduce Washing Machines.

For the purpose of introducing his washing machines into Argentina, South America, the manufacturer desires to communicate with manufacturers who can supply that trade. These machines are designed for family and steam laundry purposes, and information regarding them may be obtained by addressing Box 28, Germantown, Md.

specifications on file at office of Commissioners and of Harrison P. Eddy, consulting engineer, 14 Beacon St., Boston, Mass.; certified check for 7 per cent. of bid.

Shafting and Pulleys.

—See "Woodworking Machinery, etc."

Shuttle Machinery.

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Slate.

—See "Building Materials."

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Want's Interest in Factory.

An incontestable patent for an instantly adjustable monkey-wrench is offered for sale, either on a royalty or outright. Information regarding the device, with blueprints, etc., may be obtained from W. L. Milligan, 311 Union St., Bellair, Ohio.

Representative for Southern States.

The J. Stevens Arms & Tool Co., Chicopee Falls, Mass., announces that T. C. Montgomery, formerly of the Lefever Arms Co., Syracuse, N. Y., has joined its traveling force and will represent the company in the Southern States. Mr. Montgomery has been identified with the firearms trade for a num-

ber of years, having traveled for the Lefever Arms Co. for two years, prior to which time he was secretary of the Hurty-Simmons Hardware Co. of Minneapolis, Minn.

A Southern Hotel for Rent.

U. G. Staton, owner of the Blue Ridge Inn, Hendersonville, N. C., offers that building for rent. This hotel is centrally located in a town which is said to have 10,000 visitors during the summer months. It has 66 bedrooms, electric-lighting equipment, water supply, baths, etc.

A. N. Bentley Now Manager.

The Electric Storage Battery Co. of Philadelphia announces a change in management of its Southern sales office. H. H. Seaman, the former manager, has resigned, and A. N. Bentley has been appointed to take charge of the office. Mr. Bentley has had a comprehensive storage-battery experience as the engineer of the company's Cleveland office.

Numerous Opportunities Offered.

To those who are considering the establishment of enterprises or the acquisition of water-powers, cotton mills, fruit and vegetable farms, poultry farms, woodworking plants, etc., an announcement of the Caldwell & Northern Railroad Co. will be interesting. This company offers opportunities for these and other industries and invites correspondence.

The Bucyrus Company's Sales.

That the demand for the products of the Bucyrus Company, South Milwaukee, Wis., is steadily increasing is indicated by the satisfactory number of orders which it is receiving. Among the sales recently made is one to the Northern Pacific Railway of four 96-ton steam shovels. The Bucyrus Company manufactures steam shovels and dredges, wrecking cranes, piledrivers, rotary snow-plows, etc., and has branch offices in New York and San Francisco.

Will Soon Operate at Full Capacity.

An interesting announcement has recently been made by the Asbestos Protected Metal Co., Canton, Mass., regarding its plans for re-establishing its plant, which was lately destroyed by fire. The company states that trade will not be seriously delayed and that it is already engaged in the enlargement of its plant and equipment. It expects to be operating at full capacity within a week, and at present is receiving a satisfactory number of orders. The Asbestos Protected Metal Co. manufactures fireproof building material, etc.

Paint for Steel Buildings.

Among steel buildings in New York city for which the National Paint Works of Williamsport, Pa., has recently furnished or is furnishing paint are the following: Metropolitan Street Railway car buildings, Neptune Realty Co.'s office building, warehouse for Strohmeyer & Arpe Co., Second Avenue Railway car buildings, Henry Corn office building, Yorktown Realty Co.'s building, plant for J. M. Horton Ice Cream Co., New York Edison Co.'s building, Hall Realty Co., apartment-house for Sturtevant Realty Co., apartment for C. W. Kinsella, Fullerton & Weaver Company's building, Cummings Realty Co., J. J. Hearn Construction Co. and others. The National Paint Works is also furnishing paint for steel bridges of leading railroads. W. B. Kilpatrick, 405 Colorado Bldg., Washington, D. C., is its Southern representative.

Adding to Its Facilities.

Following the completion of its machine-shop addition the Dodge Manufacturing Co., Mishawaka, Ind., has broken ground for an additional warehouse for finished products. This new building is made necessary because of the decision of the company to improve its services, as its present warehouse facilities are inadequate. The plans provide for a structure of reinforced concrete, 256x112 feet, four stories and basement, which will cost approximately \$160,000. The first floor will be used for shipping, inspection and office purposes. A loading platform will extend the length of the warehouse, with ample trackage for loading and moving cars. The basement, second, third and fourth floors will be used for storage purposes, each to be supplied with elevator facilities and equipped with modern appliances. Among the products of the Dodge Manufacturing Co. are pulleys, hangers, pillow blocks, collars, couplings, clutches and other transmission machinery.

Henry Vogt Machine Co.'s Orders.

Recent orders for machinery received by the Henry Vogt Machine Co., office and works, 10th and Ormsby Sts., Louisville, Ky.,

include the following: Solar Refining Co., Lima, Ohio, 100-ton refrigerating machine; Standard Ice & Fuel Co., Pittsburgh, Penn., 25-ton ice-making machine; Henneberry & Co., Arkansas City, Kans., 40-ton exhaust steam refrigerating machine; E. C. Stuart, Bartow, Fla., 25-ton ice-making machine for Plant City, Fla.; Standard Oil Co., 150-ton Vogt exhaust steam refrigerating machine for its Eagle works, and three similar machines for its paraffine works at Constable Hook, N. J.; Taylorsville Creamery Co., Taylorsville, Ky., 15-ton Vogt ice-making machine with water-tube boilers; Centerfreeze Ice Co., Oklahoma City, Okla., 200-ton exhaust steam refrigerating machine; Steffon-Bretsch Ice & Ice Cream Co., Wichita, Kans., 60-ton exhaust steam refrigerating machine; Frank G. Jones & Co., Louisville, Ky., 40-ton ice-making machine; Phoenix Cotton Oil Co., Memphis, Tenn., 50-ton refrigerating machine.

Frick Company's Sales.

Recent machinery sales of Frick Company, Waynesboro, Pa., include 30-ton ice plant, compression, freezing, distilling, boiler and storage piping system to Columbia Coal & Ice Co., Columbia, Pa.; 60-ton and 36-ton refrigerating machines and compression systems to E. I. Du Pont de Nemours Powder Co., Wilmington, Del.; 20-ton refrigerating machine, compression and storage piping system to T. S. Reed Grocery Co., Beaumont, Tex.; 20-ton refrigerating machine and compression system, 10-ton improved flooded freezing system and 14-ton distilling system to Eustis Ice Co., Eustis, Fla.; 12-ton ice-making machine and compression system to the Perry Mill Co., Perry, Okla.; 50-ton ice-making machine to the Birmingham Ice Factory Co., Birmingham, Ala.; 8-ton ice plant, compression, freezing and distilling systems to Anahuac Ice Co., Anahuac, Tex.; 6-ton refrigerating machine to John Hague, St. Louis, Mo.; 10-ton ice plant, compression, freezing, distilling and boiling systems to S. G. Herlacher, Sinton, Tex.; four 2-ton refrigerating plants and compression systems to Holton Power Co., El Centro, Tex.; 20-ton ice plant, compression, freezing and distilling systems to Comanche Light & Power Co., Lawton, Okla., and other equipment.

New Appointments in a Westinghouse Company.

Recent appointments in the Westinghouse Electric & Manufacturing Co. of Pittsburgh, Pa., include S. L. Nicholson, Charles Robbins and G. Brewer Griffin. Mr. Nicholson, who has been associated with the company in various capacities for 11 years, has been appointed general sales manager and will have direct supervision of the sales policies of the company. He is well known to motor manufacturers as the organizer and president of the American Association of Motor Manufacturers. Mr. Robbins, for many years connected with the Westinghouse Electric & Manufacturing Co. in the industrial and power sales department, has been appointed manager of this department. Mr. Griffin has recently been appointed manager and is actively directing the sales policy of the detail and supply sales department of the company, in which department transformers, meters, fans, heating appliances, switches, switchboards, railway-line material, etc., are sold. He has been assistant manager of this department for the past six years. Samuel A. Chase, for the past few years with the Westinghouse Electric & Manufacturing Co. in its New York sales office as a special detail and supply salesman, has recently resigned to accept a position with the White Investing Co. of New York. After January 1 Mr. Chase will have charge of the Chicago office of the White Investing Co.

Deputy Comptroller of New York.

Following the appointment by Governor Hughes of New York of Clark Williams, State superintendent of banks, as Comptroller of the State was the announcement that Mr. Williams had appointed Edward T. Perrine, president of the Audit Company of New York, 165 Broadway, New York, as deputy comptroller. Comptroller Williams and Deputy Comptroller Perrine were business associates for many years, and with the latter's acceptance of his new position he made a statement in which he said: "The service I shall aim to render the State of New York will be in aid of a businesslike administration of the office." Mr. Perrine is 39 years of age, and was educated at the School of Arts and Columbia University. Since leaving school he has held positions with the Third National Bank of Jersey City, United States Mortgage & Trust Co. and the Audit Company, first as general manager and then as president of the latter company. He is an authority on accounts and has had wide experience in financial problems. He is also a

writer on such subjects, and has been a frequent speaker at bankers' conventions and other public gatherings. His professional duties have often brought him frequently before the public, notably when he and associates, upon the request of Governor Stuart of Pennsylvania, made a searching investigation of the expenditures incurred in erecting and furnishing the State Capitol at Harrisburg.

TRADE LITERATURE.

Roof Salad.

Another edition of "Roof Salad," a publication issued by the Genuine Bangor Slate Co., Easton, Pa., is now being circulated. It contains timely information concerning roofs, together with other interesting data, which may be had upon request.

A "Weekly Reminder" Calendar.

A useful "weekly reminder" calendar for 1910 has been issued by Judson G. Wall & Sons, 10 Wall St., New York. This company deals in municipal, railroad and industrial securities, foreign exchange, travelers checks, letters of credit, etc.

Iron Fence Information.

A folder enumerating 12 reasons why an iron fence is good and advancing the merits of the Stewart fence is being distributed by the Stewart Iron Works Co. of Cincinnati, Ohio. This company manufactures iron fences of various designs, in addition to lawn chairs and ornaments, bridge railings, grille work, porch railings, coal chutes, window guards, canopies, metal lockers, counter railings and other products.

The "Quick Sink" Well Bucket.

Among well buckets which have been favorably introduced is the "Quick Sink" well bucket for bored wells. This bucket is made of heavy galvanized sheet steel, has no screws or nails to become loose, and is provided with an automatic lifting device for emptying it. It is manufactured by the Shreveport Blowpipe and Sheet Iron Works, Shreveport, La., and is described and illustrated on a folder which the company is distributing.

The American Statesmen Series.

Another booklet in the revised American Statesman series has been issued by the Carbondum Co., Niagara Falls, N. Y., manufacturer of abrasive materials. Its author is F. W. Haskell, president of the Carbondum Co., who has selected Benjamin Franklin as the subject and prepared the booklet after the same general style as the Christopher Columbus booklet issued some time ago. The publication is brief, and alternately describes Franklin as a would-be pirate and a perfect gentleman.

For New Catalogues, Etc.

An attractive folder presenting several illustrations indicative of the quality of their work has been issued by Gatchel & Manning, designers and engravers, 6th and Chestnut Sts., Philadelphia, Pa. This company makes illustrations and engravings for catalogues, advertisements and other commercial requirements, bird's-eye views, letterheads, business cards, designs, etc., using photographs, sketches or blueprints, in half-tone line, for printing in one color, duotone, three or four color processes and multi-color.

A Treatise on Water Purification.

In Bulletin No. 7, which has recently been issued by the Otto Gas Engine Works, 357 Dearborn St., Chicago, Ill., a treatise is presented on the purification of water for boiler and industrial purposes, the aim being to present the subject in a manner which will make the treatise valuable to all whom it reaches. The bulletin treats of water purification in its simplest form, as well as with the most approved methods, and contains descriptive and illustrative data relative to the Davidson and Miller systems, which are manufactured by the Otto Gas Engine Works. The company's New York office is located at 136-138 Liberty street.

Jeffrey Coal Cutters.

Among the types of electric and air power coal cutters which have demonstrated their efficiency to perform the work for which they were designed are the Jeffrey coal-cutting machines. These machines are manufactured by the Jeffrey Manufacturing Co., Columbus, Ohio, and are illustrated and described in Bulletin No. 18, which has recently been issued. Each machine is constructed to withstand the rough work and abuse incident to mine service, and all parts are made interchangeable to insure quick repairs. Branch offices of the company are

located at 77 Warren St., New York; Fisher Bldg., Chicago; Oliver Bldg., Boston; Farmers' Bank Bldg., Pittsburgh; 612 Empire Bldg., Knoxville; Pierce Bldg., St. Louis; Charleston, W. Va., and other cities.

New Crocker-Wheeler Bulletins.

New bulletins which have recently been issued by the Crocker-Wheeler Co. of Amherst, N. J., manufacturer and electrical engineer, include Nos. 116, 117 and 118. In Bulletin No. 116 is a general outline of the functions of motor generator sets and the methods of selecting the motor generator best adapted to each condition, together with other valuable engineering information. Bulletin No. 117 is devoted to the application of motor drive to laundry machinery, which effects greater cleanliness, better light, saving in power and repairs, greater comfort to employees and greater flexibility of location of machines. It is comprehensively illustrated with half-tone engravings and contains other interesting data. Bulletin No. 118 relates to small direct-current motors and the variety of uses to which they may be applied. These include the operation of lathes, laundry equipment, printing presses and other machinery of similar requirements. This bulletin is illustrated with half-tone engravings and contains much timely information.

Blaisdell Vacuum Cleaning Plants.

Literature relative to the Blaisdell vacuum cleaning plants of all types and capacities and their adaptability for cleaning various classes of structures is being distributed by the Blaisdell Machinery Co., Bradford, Pa. These plants are used in some of the most prominent buildings of the country, including hotels, theaters, churches, private residences, public buildings, etc., and, from testimonials supplied by customers, have given almost universal satisfaction. Among recent installations of the Blaisdell stationary vacuum cleaning plants are those in the Waldorf-Astoria Hotel, New York; Hotel Lenox, Boston; public schools of Baltimore; Government buildings at Washington; county courthouse, Memphis; city schools and Masonic Temple, Birmingham; Bisbee Building, Jacksonville; Great Southern Hotel, Meridian, Miss., and many others. The company has issued Bulletin No. 30, illustrating and describing its high-vacuum portable cleaner, and Bulletin No. 31, illustrating and describing one and two-sweeper plants, belt and chain-driven, in addition to other literature bearing on its products. Branch offices are at 90 West street, New York; 10 Postoffice Square, Boston; Monadnock Block, Chicago; Birmingham, Pittsburg and other cities.

J. P. Devine Company's Literature.

A card relating to the Passburg vacuum apparatus is being distributed by the J. P. Devine Co., 428 Brisbane Bldg., Buffalo, N. Y. This company manufactures the Passburg vacuum drying and impregnating apparatus, which is claimed to save time and money, increase factory production, and is advantageous for the thorough impregnation of burned-out coils, fabric, leather, wood and similar materials, with oils, coloring matter, waterproofing and fireproofing solutions. Another card which the company is circulating contains an extract from the report of the committee on equipment of the American Street and Interurban Engineering Association reaffirming its recommendation of previous years in favor of impregnating, both for new and second-hand field coils. The report quotes from a letter of a large company using the Passburg vacuum apparatus to the effect that before installing the impregnating system it purchased in two years a total of 109,700 pounds of copper wire, whereas in two years after installing the system it has only purchased 2143 pounds. Among the products of the J. P. Devine Company are vacuum drying apparatus, manufactured under the Passburg patents, high-efficiency vacuum pumps and condensers.

Begins Construction of Fertilizer Plant.

The Southern Fertilizer & Chemical Co. of Savannah has begun the construction of its proposed fertilizer plant on Hutchinson Island, and expects to have it ready for operation by the first of February. The main building will be 150x400 feet, and equipped with modern machinery of sufficient capacity to triple the production of the company's present plant. It will cost about \$50,000. W. K. Nix of the Pratt Engineering & Machine Co., Atlanta, is the engineer in charge of construction.

Texas City's Growth.

[Galveston News.]

As heretofore announced through the *News*, the routing of between 300,000 and 500,000 bales of cotton through the port of Texas City next season is the plan of J. H. W. Steele, a freight broker of Galveston, who has completed arrangements with the Texas City Transportation Co. for space in the four large steel and concrete warehouses now in course of construction. As has been previously stated in these columns, the Texas City Transportation Co. is expending \$2,000,000 in the construction of terminals, which when completed will probably be the finest in the South, if not in the entire country. Four warehouses are now in course of construction, and it is the intention of the company to construct four more, the complete set of warehouses forming two rows extending back from the large dock and connected with the dock by electric carriers. Mr. Jackson of the Leyland and Gulf Transport lines stated it is proposed to send steamers there for export cargoes when the port facilities are such that they can be adequately handled. William Parr, agent of the Harrison Line at Galveston, stated that it is contemplated to send vessels to Texas City when that place is in a position to offer cargo. Steve Sgicovich of Sgicovich & Co., agents for the Hogan, Globe and La Cotoniera lines, stated that he would also send vessels to Texas City when the conditions warrant. Representatives of one or two other lines which have been approached have expressed a willingness to take cargo at the port, and it appears that the little city struggling up on the mainland will not suffer from lack of ocean tonnage when the cargo is offered.

The *News* is glad to see such evidences of expansion and such legitimate and increased means of encouraging wholesome competition. There is no conceivable reason why those in charge of the wharf frontage and docking facilities in Galveston should not be thus urged to improve in every possible manner their present service to the public. There is no doubt that Galveston is going to derive from sister seaports timely assistance in making good her demand for impartial treatment in the matter of freight rates and in other particulars.

There is going to be at the ports along the Gulf of Mexico a concentration of commerce that has rarely been equaled in the world's history. There is going to be plenty of business for all, and the more one gets the more the others are going to get. It is going to work just as a concentration of large business concerns in the same city or in the same locality always works. The very fact that there are more than one of them, that there is a concentration of wholesalers, for example, brings to them a concentration of customers. The vast improvements going on in Texas City and at other ports along the Gulf is an invitation for more cotton and cattle and grain and lumber and minerals to ship away to other markets, and the volume of commerce headed toward the Gulf is growing today much faster than any one port is growing. There is certainly no reason (at fair and impartial rates) why every Texas port should not have today every load it is prepared to handle and every cargo it has the facilities to ship.

Enquirer-Sun's Industrial Edition.

Reviewing the industrial progress of Columbus, Ga., for the fiscal year 1909, the *Enquirer-Sun* of that city has recently issued a large industrial edition. It presents a number of articles describing in detail the enlargements and improvements

which have been accomplished, and tells in condensed form an interesting story of advancement.

FINANCIAL NEWS

The MANUFACTURERS' RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office MANUFACTURERS' RECORD,

Baltimore, Md., December 1.

The Baltimore stock market during the past week was rather quiet, the holiday apparently having had effect upon business. In the trading United Railways common sold from 13½ to 14½; do. trust certificates, 14 to 14½; do. incomes, 61 to 62, reacting to 60; do. funding 5s, 84½ to 83½; do. do. scrip, 84½ to 84; United 4s, 86 to 86½; United Light & Power 4½s, 82½; Consolidated Gas, Electric Light & Power common, 37; do. preferred, 82½ to 82; Consolidated Gas 6s, 100% to 100½; do. 5s, 110; do. 4½s, 94½; Seaboard Company common, 19 to 19½; do. second preferred, 36; Seaboard 4s, certificates, 83½ to 83; do. three-year 5s, 99½ to 99; do. 10-year 5s, 99½; do. adjustment 5s, 70 to 70½; Mt. Vernon-Woodberry Cotton Duck 5s, 75½ to 76½; G.-B.-S. Brewing incomes, 12; do. 1sts, 41.

Bank stocks sold as follows: Farmers and Merchants', 48; Bank of Baltimore, 125; Citizens', 39; First National, 135; Merchants', 168 to 167; Western, 37½; Bank of Commerce, 30½; Exchange, 158. International Trust was traded in at 137 and United States Fidelity at 141.

Other securities were dealt in thus: Anacostia & Potomac 5s, 102; Baltimore & Harrisburg 1s 5s, 106½; Baltimore Electric 5s, stamped, 90½; Northern Central Railway stock, 105; Atlantic Coast Line new 4s, certificates, 101 to 99½, last sale at 100; Atlantic Coast Line Equipment 4s, 1917, 95%; do. Consolidated 4s, 94½ to 95; do. of South Carolina 4s, 99; do. Connecticut 4s, certificates, 87; Charleston Consolidated Electric 4s, 90½; Macon, Dublin & Savannah 5s, 96½; Virginia Century, 92½; Consolidation Coal, 109½ to 111; Georgia Southern & Florida 5s, 108½; do. first preferred, 94½; Georgia & Florida common, 11; Maryland Electric 5s, 97½; Norfolk Railway & Light 5s, 96½ to 97; Virginia new 3s, 91½; Baltimore City 5s, 1916, W. L., 105; do. 3½s, 1936, 99; do. do. 1940, 99; do. do. 1945, 99; Merchants & Miners' Transportation Co., voting trust, 85; Baltimore City Passenger 4½s, 98½; Georgia & Alabama Consolidated 5s, 104 to 104½; Georgia, Carolina & Northern 5s, 104½ to 105; Fairmont Coal 1st 5s, 96%; Charleston & Western Carolina 5s, 107; American Caramel preferred, 100½; Knoxville Traction 5s, 105; Baltimore Refrigerating & Heating 5s, 15; Baltimore City Passenger 5s, 100%; Baltimore Sparrows Point & Chesapeake 4½s, 92½.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended December 1, 1909.

Railroad Stocks. Par. Bid. Asked.

Atlanta & Charlotte	100	185	...
Atlantic Coast of Conn.	100	320	340
Georgia Sou. & Fla.	100	30	...
Georgia Sou. & Fla. 1st Pfd.	100	...	94½
Norfolk Railway & Light	25	183½	...
Seaboard Company Common	100	19	19½
Seaboard Company 2d Pfd.	100	35	37½
United Rys. & Elec. Co.	50	13½	14

Bank Stocks.

Citizens' National Bank	10	39	39½
First National Bank	100	...	140
Merchants' National Bank	100	166	167
National Bank of Baltimore	100	...	125½
National Bank of Commerce	15	301½	...
National Exchange Bank	100	157½	159
National Howard Bank	10	13½	...
National Marine Bank	30	40½	...
National Mechanics' Bank	10	28	30
National Union Bank of Md.	100	...	125
Western National Bank	20	37	...

Trust, Fidelity and Casualty Stocks.

American Bonding Co.	25	75	76
Balto. Trust & Guarantee	100	295	305
Continental Trust	100	215	230
Fidelity & Deposit	50	150	156
International Trust	100	135	140
Maryland Trust Pfd.	100	103	105

Union Trust	50	72	...
U. S. Fidelity & Guaranty	100	141	...
Miscellaneous Stocks.			
Ala. Con. Coal & Iron	100	...	26½
Ala. Con. Coal & Iron Pfd.	100	...	80
Con. Cotton Duck Common	50	4	6½
Con. Cotton Duck Pfd.	50	17½	20
Con. Gas, Elec. Lt. & P. Com.	100	35	40
Con. Gas, Elec. Lt. & P. Pfd.	100	82½	82%
Consolidation Coal	100	110	111
Georges Creek Coal	100	97½	...
Mer. & Miners' Trans. Co.	100	85	86

Railroad Bonds.

Atlanta & Charlotte Ext.	4½s	99½	...
Atlantic Coast Line 1st 4s	1952	94½	95½
Atlantic Coast Line new 4s, Cfts.	1998	100½	...
At. Coast Line Com. 4s, Cfts.	5-20s	92	94
Atlan. Coast Line (Conn.) 4s, Cfts.	87	...	
Balto. & Harrisburg 5s	1936	105½	...
Balto. & Harrisburg Ext. 5s	1938	103½	...
Carolina Central 4s	1949	93	93
Charleston & West. Car. 1945	106½	107½	...
Coal & Coke Railway 5s	95	...	
Col. & Green. 1st 6s	1916	105	108
Florida Southern 4s	1940	93	93½
Georgia & Alabama 5s	1943	103½	104
Georgia, Car. & North. 1st 5s	1929	104½	105
Georgia South. & Flm. 1st 5s	1945	108½	...
Md. & Penna. 1st 5s	1951	91	...
Macon, Dublin & Savannah 5s	96	96½	...
Potomac Valley 1st 5s	1941	105	106
Seaboard Air Line 4s, 1950	83½	84	...
Seaboard Air Line 5s, 10-year	1911	99½	99½
Seaboard Air Line 5s, 3-year	99	99½	...
Seaboard & Roanoke 6s	1916	100	...
Seaboard & Roanoke 5s	1926	105	...
Washington Terminal 3½s	89½	90½	...
Western N. C. Com. 6s	1914	106	107
W. Va. Cent. 1st 6s	1911	101½	102
Wilmington & Weld. Gold 5s	1935	110½	...
Wilmington & Weldon 4s	...	98	...

Street Railway Bonds.

Augusta Ry. & Elec. 5s	1940	101½	...
Balto. City Pass. 5s	1911	100½	...
Balto. City Pass. 4½s	...	98½	...
Balto. Trac. 1st 5s	1929	107½	111
Balto. Trac. (N. B. Div.) 5s	1942	110½	113½
Charleston Con. Elec. 5s	1939	90	92
Chattanooga Electric 5s	...	89	...
City & Suburban 5s (Balto.)	1922	106	107½
Knoxville Traction 1st 5s	1928	95½	96
Knoxmont & Clarkburg Trac. 5s	...	103½	105
Lake Roland Elevated 5s	1942	112½	...
Lexington Railway 1st 5s	1949	97	...
Macon Ry. & Lt. 1st Con. 5s	1953	94	95
Maryland Electric Ry. 5s	...	97½	97½
Memphis Street Railway 5s	...	99	100
Newport News & Old Pt. 5s	1938	92½	94
Norfolk & Portsmouth Trac. 5s	...	82½	...
Norfolk Railway & Light 5s	...	96½	97
United Railways 1st 4s	1949	80½	80½
United Railways Inc. 4s	1949	59½	59½
United Railways Funding 5s	...	83%	84%

Miscellaneous Bonds.

Baltimore Electric 5s	...	90½	...
Consolidated Gas 6s	1910	100%	100½
Consolidated Gas 5s	1939	110	...
Consolidated Gas 4½s	...	94½	...
Consolidation Coal Rdg. 4½s	...	95%	...
Consolidation Coal 1st Pfd.	1948	103	...
Con. Gas, Elec. Lt. & P. 4½s	...	81½	83
G.-B.-S. Brewing 1st 4s	...	41	42
G.-B.-S. Brewing Inc. 4s	...	11½	12½
Maryland Telephone 5s, Gtd.	...	98	99½
Mt. Vernon-Woodby Cot. Duck 5s	76	77	...

SOUTHERN COTTON-MILL STOCKS

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending November 29.

Bid. Asked.

Abbeville Cotton Mills (S. C.)	70	71	...
Aiken Mfg. Co. (S. C.)	...	85	...
American Spinning Co. (S. C.)	155	...	
Anderson Cotton Mills (S. C.)	54	56	...
Arkwright Mills (S. C.)	100½	105	...
Augusta Factory (Ga.)	65	70	...
Avondale Mills (Ala.)	115	125	...
Belton Mills (S. C.)	120	...	
Bibb Mfg. Co. (Ga.)	...	114	...
Brandon Mills (S. C.)	97	99	...
Cabarrus Cotton Mills (N. C.)	125	145	...
Chadwick-Hoskins Mfg. Co. (N. C.)	100	...	
Chadwick-Hoskins Mfg. Co. (N. C.)	102	...	
Chiquita Mfg. Co. (S. C.)	165	167	...
Clifton Mfg. Co. (S. C.)	105	...	
Clinton Mfg. Co. (S. C.) Pfd.	99	101	...
Clinton Cotton Mills (S. C.)	120	130	...
Columbus Mfg. Co. (Ga.)	93	98	...
Courtenay Mfg. Co. (S. C.)	97	100	...
Dallas Mfg. Co. (Ala.)	97	105	...
Darlington Mfg. Co. (S. C.)	74	80	...
Drayton Mfg. Co. (Ala.)	...	100	...
Eagle & Phenix Mills (Ga.)	...	135	...
Easley Cotton Mills (S. C.)	165	170	...
Enoree Mfg. Co. (S. C.)	52	62	...
Enoree Mfg. Co. (S. C.) Pfd.	95	100	...
Enterprise Mfg. Co. (Ga.)	80	90	...
Exposition Cotton Mills (Ga.)	...	240	...</td

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100,000 6 per cent. Industrial Bonds.
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100,000 of Common Stock.
In strongest mill corporations.
Also 100,000 first mortgage real estate loans.
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JOHN B. H. DUNN, Ass't Cashier

Capital, \$1,500,000

Surplus and Profits, \$900,000
Deposits \$12,000,000

Accounts of Banks, Bankers, Corporations
and Individuals solicited. We invite correspondence.

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We purchase SCHOOL, COUNTY and MUNICIPAL BONDS. Southern Municipal Bonds a Specialty.
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Southern Stocks and Bonds
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Cotton Mill Stock a Specialty

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July 15, 1908, Surplus and Profits, \$671,631.60

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A SPECIALTY

TRANSMISSION ROPE

MANUFACTURERS' RECORD.

constitute a finance committee, which will have supervision of the company's investment of its assets.

The formation of this large insurance company is a gratifying evidence of the increasing prosperity of Atlanta, and also of the ability of the South generally to care for its own interests, doing its own insurance and in many other ways making itself independent and progressive.

Bank Reports.

The Birmingham Trust & Savings Co. of Birmingham, Ala., reports November 16, 1909, loans and discounts, \$2,775,959; demand loans, \$429,600; due from banks and bankers and cash in vault, \$1,442,670; capital stock, \$500,000; surplus, \$300,000; undivided profits, \$112,987; total deposits, \$4,158,587; total assets, \$5,071,674; Arthur W. Smith, president; Tom O. Smith, vice-president; W. H. Manly, cashier, and Benson Cain, C. D. Cotten and E. W. Finch, assistant cashiers.

FINANCIAL CORPORATIONS.

Ala., Ashland.—Official: The First National Bank, chartered November 12, 1909, began business November 22 with Bennett W. Pruet president, E. H. Hawkins cashier, E. L. Whatley and C. W. Allen vice-presidents; capital \$25,000.

Ark., Coal Hill.—The Citizens' Bank has filed articles of incorporation; capital \$20,000. Incorporators, A. D. Reynolds, president; G. D. Ferguson, vice-president; A. G. Hill, secretary and treasurer; W. A. Hill and C. C. Flake.

Ark., Fort Smith.—Official: The Q. A. Burks Bond & Mortgage Co. chartered and incorporated; capital \$10,000; W. A. Burks, president, Fort Smith, Ark.; B. S. Terry, vice-president, Bentonville, Ark.; M. L. Rollins, secretary, Fort Smith, Ark.

Ark., Little Rock.—The Bankers' Reserve Life Insurance Co., recently chartered with capital and surplus of \$300,000, has elected directors thus: President, P. P. Shaw; secretary-treasurer, W. J. Mathey; W. W. Sutherland, George Vaughan and Thomas H. Simms, Jr.

Ga., Atlanta.—Official: The Merchants & Manufacturers' Insurance Co., capital \$1,000,000, is being organized by H. C. Stockdell, Geo. W. Parrott, J. W. English, John W. Grant, Wm. L. Peel, D. W. Apper, Robt. J. Lowry, Jas. O. Wynn, Frank Hawkins, John M. Slaton, Samuel F. Parrott, W. T. Crenshaw, Asa G. Candler, Chas. E. Currier, W. J. Morrison, Robt. F. Maddox, W. H. Kiser, B. M. Blount, E. P. McBurney and Forrest Adair.

Ga., Byromville.—Official: The Byrom National Bank chartered; capital \$25,000; incorporators, J. S. Byrom, president; W. H. Byrom and S. B. Byrom, vice-president; W. E. Dawson, cashier, and R. S. English.

Ga., Doe Run.—Official: The Farmers' Bank chartered; capital \$25,000; W. B. Jones, president; I. Cook, vice-president; R. L. Free, cashier; John D. Walker, Sparta, Ga., financial agent. Business has begun.

Ga., Gough.—Official: The Bank of Gough chartered; authorized capital \$25,000; \$15,000 paid in; John D. Walker, president, Sparta, Ga.; C. W. Kitchens, cashier, Gough, Ga. Business has not begun.

Ga., Jenkinsburg.—The Bank of Jenkinsburg is reported organized with \$30,000 capital. Directors, L. O. Benton, president; J. W. Benson, Jr., vice-president; E. D. Thurs-ton, H. G. Asbury, B. F. Aiken, L. A. Atkinson, R. E. Evans, C. L. Carter and A. H. Carmichael; H. V. Hodge of Logansville will be cashier.

Ga., Lilly.—Official: The Planters' Bank chartered; capital \$25,000. Directors, T. P. Busbee, president; J. A. Lilly, J. E. McGough, H. B. Forehand, W. T. Ricks, F. T. Mason, A. F. Forehand, all of Lilly, Ga. Business has begun.

Ga., Reynolds.—Approved: The First National Bank; capital \$25,000; organizers, O. H. Neisler, Reynolds, Ga.; J. N. Bryan & Co., J. J. Carson, J. H. Neisler and P. E. Mc-Duval.

Ky., Catlettsburg.—Approved: The Kentucky National Bank of Catlettsburg; capital \$25,000; incorporators, G. W. Gunnell, Ernest Mock, A. Mims, John Russell and Charles Russell.

La., Breaux Bridge.—The Latin-American Casualty & Life Insurance Co. is reported organized with \$300,000 capital. Directors, A.

F. Domeneaux, president; Vic J. Jaeger, vice-president; John Comeau, treasurer; P. L. Begnaud, secretary; G. D. Domeneaux, Philip Hickley, Jr., and Dr. L. Fougauaud.

Md., Baltimore.—The National City Bank, capital \$500,000, surplus \$125,000, is being organized by David H. Carroll, vice-president of the Consolidated Cotton Duck Co., and John F. Sippel, American Bldg.

Miss., Indianola.—The Mississippi Loan, Improvement & Investment Co., capital \$20,000, reported organized by J. Z. Keys, Z. E. McGee and others.

Miss., Magee.—Official: The Commercial Bank, capital \$15,000, organized with directors thus: Z. D. Davis, Jackson, Miss., president; P. H. Saunders, Laurel, Miss., vice-president; W. C. Smith, Magee, Miss., cashier; T. B. Bonner, Laurel, Miss., and C. E. Novel, New Orleans. The new concern takes over the building and assets of the old Magee Bank.

Mo., Kansas City.—The Title & Savings Trust Co. has filed articles of incorporation; capital \$500,000. Directors, E. F. Swinney, J. W. Perry, J. F. Downing, F. P. Neal, Lee Clark, Charles Campbell, Henry C. Flower, Henry C. Brent, George W. Fuller, Frank L. Hall, C. A. Murdock, Frank Hagerman, Leon Smith, John W. Jenkins and Thornton Cooke.

Mo., Lone Jack.—The Bank of Lone Jack, capital \$15,000, is reported to have opened for business with Henry Cave president, John D. Shawhan cashier and Frank C. Lewis assistant cashier.

Mo., St. Louis.—The American Home Building and Loan Association reported incorporated with \$100,000 capital by Matt J. Kredell, Henry W. Barth, M. Ruecking, Clarence H. Hughes, Otto E. Leitner, Charles A. Schwind, Henry B. Hess, Charles A. Shafer, A. F. Hoffmann, Charles Mueller, William Winter, Robert J. Ebrecht, John Kratzer, Alfred Bump, Joseph Weiss, L. F. Pedberg, Nic E. Shira, Mannie Frost, Ben Dupske, John Roe-del, John J. Hell, C. G. Feldman, George Bergmann, Uriah N. Edlinger and Paul Schneider.

N. C., Rockingham.—Official: Chartered: A new bank; capital \$25,000. Incorporators, A. A. Dockery, M. L. Hinson, J. P. Cameron and Claude Gore.

Okla., Clinton.—Reports state that George O. Whitehurst of Sayre, Okla.; James Lee of Kansas City, Mo., and John Shelton and O. P. Jones of Shamrock, Tex., propose establishing a State bank.

Okla., Elk City.—George O. Whitehurst of Sayre, Okla.; James Lee of Kansas City, Mo., and John Shelton and O. P. Jones of Shamrock will, it is reported, establish a State bank.

Okla., Enid.—Official: The First National Bank of Enid, capital \$100,000, organized by U. M. Goltry, S. W. Johnson, C. W. Goltry, John P. Cook and S. S. Goltry.

Okla., Erick.—Reported that George O. Whitehurst of Sayre, Okla.; James Lee of Kansas City, Mo., and John Shelton and O. P. Jones of Shamrock, Tex., will establish a State bank.

Okla., Muskogee.—The Oklahoma Building and Loan Association is reported chartered with \$50,000 capital. Directors, A. E. Patterson, J. E. Johnson, J. H. Escore, J. R. Mayne, L. F. Fue, R. H. Waterford and G. W. Davis.

Okla., Sayre.—The State Bank of Sayre, capital \$25,000, is reported organized by Geo. O. Whitehurst of Sayre and associates.

Okla., Tulsa.—The Tulsa Building and Loan Association, capital \$200,000, is reported incorporated by C. B. Lynch, H. O. McClure, Dan Hunt, C. A. Mayo, J. W. Orr, Gilbert A. Ottman and W. E. Chastain.

Okla., Washington.—The First State Bank of Washington, capital \$12,000, is reported chartered by James Crawford, W. B. Kerby and Wm. Tomlin of Purcell, and H. G. Turner and B. Pyhoes of Washington.

Okla., Wanette.—Official: The Security State Bank chartered; capital \$15,000; E. M. Abernathy, president, Lexington, Okla.; O. L. Beckner, vice-president, and Ark Ferguson, cashier, both of Wanette.

S. C., Aiken.—The Aiken Savings Bank, incorporated with \$25,000 capital, has elected officers thus: J. P. McNair, president; R. W. McCreary, vice-president, and J. A. M. Gardner, cashier. (The above is officially confirmed.)

S. C., Aiken.—The Bank of Western Carolina, with headquarters at Aiken, is expected to begin business December 1 with total resources of approximately \$1,500,000. The general officers will be: President, H. M. Dibble; first vice-president, James Powell; second vice-president, P. M. Buckingham; executive committee, H. M. Dibble, P. M.

Buckingham, Henry Busch, J. M. Easterling, Butler Haggard, C. K. Henderson, James Powell and F. B. Henderson. Branches will be established as follows: Barnwell, P. M. Buckingham, manager; Ellenton, Evan E. Settle, manager; Blackville, T. L. Wragg, manager; Salley, E. G. Haltiganger, manager.

S. C., Charleston.—The Imperial Insurance Co., capital \$40,000, is reported chartered with T. T. Hyde president, W. J. Pinkussohn vice-president, H. L. Erckmann secretary and T. T. Hyde treasurer.

S. C., Charleston.—The Metropolitan Building and Loan Association chartered; capital \$150,000; has organized with R. G. Rhett, president; A. Rugheimer, vice-president, and T. T. Hyde, secretary and treasurer.

S. C., Greenville.—The Co-operative Home Building and Loan Association is reported organized with directors thus: W. C. Cleveland, president and treasurer; Arthur L. Mills, vice-president; H. T. Mills, secretary, and C. F. Haysworth, attorney; F. W. Symmes, J. Hudson Williams and L. B. Houston; capital \$100,000, with privilege of increasing to \$1,000,000.

S. C., Woodruff.—The Woodruff Building and Loan Association, capital \$50,000, reported incorporated by C. M. Drummond, S. D. Parsons and J. W. Nash.

Tex., via Dickens, Spur.—The Spur National Bank, capital \$100,000, is reported organized by E. P. Swenson, R. V. Colbert, P. P. Berthelot, C. A. Jones and W. G. Sherrod.

Tex., Amarillo.—Official: The Amarillo National Life Insurance Co. chartered; capital \$150,000; surplus \$150,000; C. T. Herring, Amarillo, president; C. P. Smith, Vernon, vice-president; W. H. Fuqua, Amarillo, treasurer; Dr. J. W. Greenwood, Memphis, Tex., medical director; G. J. Brothers, Amarillo, secretary.

Tex., Paint Rock.—The First State Bank is reported chartered with \$25,000 capital.

Tex., Windom.—The First State Bank, capital \$17,000, is reported incorporated by F. J. Underwood, W. H. Dowlen and H. H. Lee-man.

W. Va., Montgomery.—Official: The Montgomery & Coles Insurance Agency of Montgomery incorporated; capital \$6000. Incorporators, N. R. Coles, Arthur M. Lewis, L. M. Carson, S. H. Montgomery and E. P. Champe.

W. Va., Sutton.—Official: Home National Bank chartered; capital \$70,000; Amos Bright, president; G. B. Fisher, vice-president; G. B. Wagoner, cashier; A. L. Morrison, assistant cashier. The bank has 15 directors.

NEW SECURITIES.

Ala., West End.—Voted bonds as follows: \$6500 for completion of school and other public buildings and \$6000 for construction of bridges.

Ark., Hartford.—Lewis W. Thomson of St. Louis is reported to have been awarded \$10,000 of 6 per cent. school bonds.

Fla., De Land.—Reported that Volusia county proposes calling an election to vote on \$250,000 of road bonds.

Fla., Jacksonville.—Reported that the \$1,000,000 of Duval county road bonds recently voted have been awarded to the Barnett National Bank of Jacksonville at a premium of \$20,000.

Fla., Lakeland.—Voted: \$65,000 of municipal improvement bonds; C. W. Deen and N. A. Riggins, bond trustees.

Ga., Macon.—December 8 an election is to be held to vote on \$100,000 of paving and \$100,000 of 4 per cent sewer bonds; denomination \$1000; John T. Moore is Mayor.

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Ky., Newport.—An official letter says that relative to the \$100,000 of street-improvement bonds nothing will be done in the matter until February or March next. John W. Davis is City Clerk.

La., New Roads.—The Bank of New Roads is reported to have purchased \$50,000 of bonds of Portage Drainage District, Pointe Coupee parish.

La., Natchitoches.—Reported voted: \$14,000 of high school completion bonds.

La., Shreveport.—Voted: \$417,000 of 4 per cent. 40-year bonds, \$167,000 being for refunding and \$250,000 for public improvements. Address The Mayor.

La., St. Bernard.—The Whitney Central Bank of New Orleans is reported to have purchased the \$60,000 of bonds of Bayou Terre-Aux-Boeufs Drainage District.

Md., Baltimore.—City will sell a large block of the 3½ per cent. sewerage loan stock, same being part of the \$10,000,000 sewerage loan, which matures 1930. Address J. Sewell Thomas, City Register. A local banking firm has purchased \$18,900 of the issue, and other sales have also been made.

Miss., Hazlehurst.—Voted: \$8000 of park bonds.

Miss., Jackson.—A new ordinance has been prepared. It is reported, providing for \$238,000 instead of \$225,000 of municipal improvement bonds.

Miss., Valden.—Official: The \$21,000 of water-works bonds for which bids are being received are 20-year 6 per cents; date, December 7, 1909; denomination, \$1000. C. L. Armstrong is City Clerk.

Mo., Hermann.—Reported that an election is to be held to vote on \$20,000 of water-works bonds.

Mo., Webb City.—Bids will be received until 6 P. M. December 6 by L. O. Walker, City Clerk, for \$11,500 of 5 per cent. 10-20-year funding bonds; date, December 1, 1909; maturity, December 1, 1929; denomination, \$500; officially confirmed.

N. C., Hendersonville.—W. F. Ostendorf of Charleston has been awarded at \$965 premium the \$20,000 of 6 per cent. 20-year street-improvement bonds.

N. C., Jacksonville.—The Bank of Onslow is reported to have purchased at \$1250 premium \$40,000 of 30-year Onslow county bonds.

N. C., Sanford.—Reported that the election to be held in Jonesboro township, Lee county, to vote on \$10,000 of road bonds will be held December 28.

N. C., Washington.—Seasongood & Mayer of Cincinnati are reported to have been awarded at \$820 premium \$25,000 of 50-year street-improvement bonds.

N. C., Wilmington.—Bids will be received by John J. Fowler, City Clerk and Treasurer, until noon December 27 for \$100,000 of 4½ per cent. 40-year street-improvement bonds.

Okl., Bartlesville.—Bids will be received by L. C. Pollock, City Clerk, until 5 P. M. December 6 for \$40,000 of City Hall and \$20,000 of fire equipment 5 per cent. 20-year bonds.

Okl., Beaver.—Seasongood & Mayer of Cincinnati are reported to have purchased at \$75 premium \$23,000 of 5 per cent. 20-year Beaver county funding bonds.

Okl., Broken Arrow.—December 1 election will be held to vote on \$37,000 of water-works bonds.

Okl., Enid.—An official letter says vote will soon be taken on \$250,000 of high-school building bonds. Walter H. McKenzie is Mayor.

Okl., Granite.—Chas. S. Kidder & Co. of Chicago are reported to have purchased \$45,000 of 5 per cent. 20-year water-works and electric-light bonds.

Okin., Hominy.—Official: Bids will be received until December 14 for \$36,000 of 6 per cent. 10-25 year water and sewer bonds; date, January 1, 1910; maturity, 1935. Address G. E. Stohr, chairman board of trustees.

Okl., Okemah.—Official: Bids will be received until 6 P. M. December 15 for \$30,000 of 6 per cent. water-works bonds; date, October 1, 1909; maturity, October 1, 1934; denomination, \$1000. Address Harry Buckingham, chairman of board.

Okl., Sayre.—Reported that an election held in Beckham county to vote on \$55,000 of courthouse and jail bonds failed to carry.

S. C., Florence.—Reported that an election is to be held December 21 to vote on \$30,000 of water-works extension and \$70,000 of sewerage bonds.

S. C., Rock Hill.—An official letter says that city will issue no bonds during next six months.

Tenn., Chattanooga.—Bids will be received until 9 A. M. December 4 by T. C. Thompson,

Mayor, for \$1633.40 of 6 per cent. bonds of paving district No. 130.

Tenn., Knoxville.—Bids will be received until 10 A. M. November 30 for \$170,000 of 5 per cent. five-year paving bonds. John M. Brooks is Mayor.

Tenn., Memphis.—The Bank of Commerce & Trust Co. of Memphis has been awarded at \$320 premium \$425,000 of 4½ per cent. 35-year general street-improvement bonds.

Tenn., Nashville.—Reported that an election is to be held to vote on \$500,000 of bonds for cleaning out Black Bottom.

Tenn., Memphis.—The Equitable Life Assurance Society is reported to have purchased \$550,000 of 6 per cent. street-improvement bonds.

Tenn., Morristown.—January 15, it is reported, an election is to be held to vote on sewer bonds.

Tenn., Nashville.—The Mayor writes that school and sewer bonds have been voted, but cannot be sold before the first of January, 1910.

Tenn., Rogersville.—Bids will be received by J. R. Sanders, secretary Hawkins County Road Commission, until December 17 for \$40,000 of 4½ per cent. road bonds. An official letter confirms the above, and also says that the entire issue of Hawkins county road and bridge bonds authorized August 8, 1907, amounted to \$200,000, divided into five issues of \$40,000 each. The first three lots have been sold. Bids are now being asked for the fourth, and the last \$40,000 at 4 per cent. will be issued some time later. The denomination of each bond is \$1000. J. R. Sanders is secretary Board of Commissioners of Hawkins county.

Tex., Amarillo.—Voted: \$100,000 of school improvement bonds.

Tex., Austin.—The Attorney-General has approved the following securities: \$10,000 of 5 per cent. 20-40-year Lexington schoolhouse bonds; \$10,000 of 5 per cent. 10-40-year Woodward independent school district bonds; \$25,000 of public works, \$75,000 of street improvement and \$12,000 of refunding and \$100,000 of funding 5 per cent. Waco bonds; \$20,000 of Archer county 4 per cent. 20-year jail bonds; \$25,000 of 4 per cent. 40-year Guadalupe county road bonds; \$300 of 5 per cent. 5-15 year bonds of Houston county common school district 17; \$17,000 of 5 per cent. 5-40-year Burleson independent school district schoolhouse bonds; \$15,000 of 5 per cent. 5-15-year Kaufman county common school district No. 17 schoolhouse bonds; \$800 of 5 per cent. 10-20-year district No. 2 and \$100 of district No. 10 Wood county school bonds; \$1500 of 5 per cent. 5-10-year district No. 89 and \$700 of 5 per cent. 5-10-year district 77 Bell county school bonds; \$40,000 of Morgan township, Carter county, road bonds; \$85,000 of 5 per cent. 30-year bonds of Liberty county drainage district No. 1; \$6000 of 5 per cent. 15-20-year bonds of El Paso county common school district No. 2; \$2000 of 5 per cent. 10-20-year bonds of Cherokee county common school district No. 73 schoolhouse bonds; \$25,000 of 5 per cent. 20-40-year Canyon City water-works bonds.

Tex., Beeville.—Bids will be received until December 25 for \$14,000 of 5 per cent. 10-20 year bonds of Bee county school district No. 2. W. W. Dodd is County Judge.

Tex., Bloomington.—The First National Bank of Victoria is reported to have purchased \$3000 of 5 per cent. schoolhouse bonds.

Tex., Brownsville.—Reported that the election to vote on \$204,000 of Cameron county drainage bonds is to be held December 7.

Tex., Denison.—An election is to be held December 18. It is stated, to vote on \$250,000 of road bonds.

Tex., Fort Worth.—Reported that an election will probably be held to vote on \$200,000 of park bonds. Address Board of Park Commissioners.

Tex., Granbury.—Voted: \$25,000 of road bonds of Hood county Precinct No. 1.

Tex., Houston.—Reported that an election is to be held in Harris county to vote on \$75,000 of drainage bonds.

Tex., Houston.—Reports state that on December 6 an election will be held to vote on \$235,000 of drainage district No. 3 bonds.

Tex., Oakwood.—Official: Bids will be opened 10 A. M. December 10 for \$10,000 of 5 per cent. 10-40-year independent school district school-building bonds, denomination \$500, dated July 1, 1909; election held June 21, 1909. John A. Childress is president of the School Board.

Tex., Sayre.—Reported that an election held in Beckham county to vote on \$55,000 of courthouse and jail bonds failed to carry.

Tex., San Angelo.—Bids will be received until 4 P. M. January 3 for \$15,000 of 5 per

cent. 20-40-year central fire-station bonds. Address A. C. McDonald, City Secretary.

Tex., San Marcos.—The State Bank & Trust Co. of San Marcos is reported to have been awarded at \$300 premium \$25,000 of 5 per cent. high-school bonds.

Tex., Stamford.—An official letter confirms the report that city school district has authorized \$15,000 of bonds. M. C. Blanchett is Mayor.

Tex., Sweetwater.—Bids are reported being received by M. B. Howard, secretary, for \$10,000 of 5 per cent. 10-40-year school-building bonds.

Tex., Terrell.—Voted: \$10,000 of light and water plant improvement bonds.

Tex., Yancey.—An official letter says there is no new bond issue. This denies a recent press report.

Va., Danville.—The question of issuing \$100,000 of 4 per cent. street and bridge bonds is reported under consideration.

Va., Pulaski.—December 4 an election is to be held in Pulaski magisterial district, Pulaski county, to vote on \$70,000 of road bonds.

Va., Big Stone Gap.—Reported that bids will be received until December 4 by J. S. S.

Wright, Town Recorder, for \$30,000 of 5 per cent. improvement bonds.

FINANCIAL NOTES.

The First State Bank of Cestos, Okla., is reported to have increased its capital from \$15,000 to \$30,000.

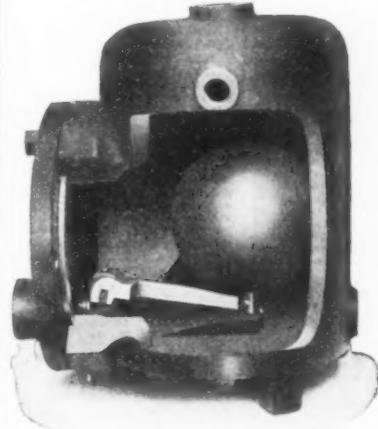
The Union Savings Bank of Columbia, S. C., is reported to have increased its capital from \$50,000 to \$100,000. It is also stated that application is to be made for a national charter.

Reported that the name of the Rome Industrial Life Insurance Co. of Rome, Ga., has been changed to the Rome Insurance Co., and the capital increased from \$100,000 to \$1,000,000.

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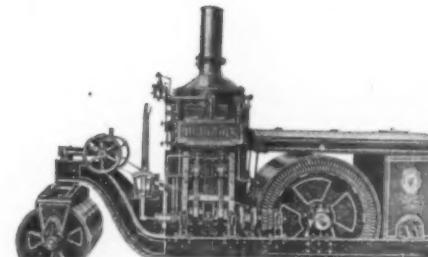
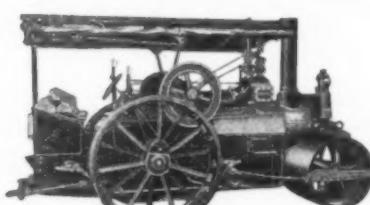
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WITNESSES" See Pages 94-95

A	Bonfoey, F. L.	22	Devine Co., J. P.	54	Horton & Horton.	100	McKiernan Drill Co.	109	Reuter-Jones Mfg. Co.	20
Abbott & Co., F. G.	89	Boerner & Boschart Press Co.	93	Diamond Rubber Co., Thos.	15	McLanahan-Stone Mach. Co.	122	Reynolds, B. F.	20	
Abendroth & Root Mfg. Co.	123	Borst & Company.	93	Dixie, L. R. & J.	16	McLeod, Henry Co.	8	Rice, H. B.	20	
Abrasive Material Co.	81	Bowen.	101	Diamond Pipe Co.	100	McMichael, James M.	22	Richardson & Co., Inc.	101	
Acme Equipment & Eng'r Co.	113	Brunly-Hardy Co.	119	Dixie Electro Magnet Co.	186	Mead-Miles Pipe Works.	130	Richmond, Fredricksburg & Pot-		
Address No. 14 North 7th St., 97		Broderick & Bascom Hope Co.	50	Dixie Portland Cement Co.	27	McKleinburg, Ill. Works.	125	tom Railroad.		
Richmond, Va.		Brown & Gelbel.	116	Dixie Seal & Stamp Co.	134	Houston Standard & Gamble Co.	4	Richmond Iron Works.	21	
Actina Engineering Bureau.	23	Brown Holting Mch. Co.	116	Dixon Crucible Co., Joseph, Thos.	148	Houston Mining Drill Co.	109	Richmond Forging Corpora-		
Albany Steam Trap Co.		Brown, W. T.	140	Dobie Fdry. & Machine Co.	115	Hoyer, J. K.	24	tive Co.		
Alberger Condenser Co.		Brownell Co., The.	116	Dodge Mfg. Co.	115	Huber Mfg. Co., The.	118	Richter Electric Co., Eugene L.	100	
Alberger Pump Co.	132	Browning Mfg. Co.	116	Dodge & Day.	22	Hudson Engineering Co.	182	Ridgway Dredge Co.	101	
Alexander, H. L.	97	Browning Engineering Co., The.	116	Dobson, H. C.	20	Hughes Specialty Well Drill Co.	132	Riter-Conley Mfg. Co.	101	
Buffalo Forge Co.	23	Buckeye Iron & Brass Works.	136	Duthie Bros. Saw Mfg. Co.	135	Iverson Steel Casting Co.	121	Riverton Iron Works, Inc.	21	
Allegheny Steel Co.		Buckeye Company, The.	113	Hutting Mfg. Co.	101	Jones, A.	109	Roanoke Iron Works, Inc.	21	
Alpha Photo-Engraving Co.	126	Buffalo Pitt Company.	23	Hyde Bros. & Co.	101	Robbins, O. A.	109	Robbins & Myers Co., The.	21	
Alpha Portland Cement Co.	26	Buffalo Steam Pump Co.	5	Hydralic Press Brick Co.	49	Roberts Filter Mfg. Co.	20	Roberts, T. E.	27	
Alpha-Slate Co., The.	26	Buffalo Steam Roller Co.	3	Hydralic Properties Co., The.	23	Milburn, Heister & Co.	22	Robins Conveying Belt Co.	21	
Alising Engineering Co., J. R.	122	Bullock, C. P. E.	22	Hyndman Roofing Co.	37	Milne Water Tube Boiler Co.	120	Robins & Co., A. K.	26	
Aluminum Co. of America.	121	Burns & Co., Robert M.	112	Ideal Electric Co.	144	Miller Son Co., B. C.	8	Robinson & Orr.	20	
American Air Compress. Wks.	109	Burr & Son, John T.	17	Illinois Central Railroad.	144	Milton Mfg. Co.	20	Robinson & Son Co., Wm. C.	20	
American Asphaltum & Rubber Co.		Burries & Son, John T.	40	Independent Pneumatic Tool Co.	109	Milwaukee Corrugating Co.	20	Rock Island Rail Lines.	16	
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Trenton Engine Co.	4
Trexler Lumber Co.	99
Trimont Manufacturing Co.	49
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Triumph Ice Machine Co., The	10
Tramp Co., The	129
Trussed Concrete Steel Co.	82
Tucker & Laxson	22
Tudor Boiler Mfg. Co.	5
Turner, C. L.	98

U

Union Iron Works Co., The	102
Union Mining Co.	9
Union Steam Pump Co.	111
Union Sulphur Co.	47
United Roofing and Manufacturing Co.	126
United States Cast Iron Pipe & Foundry Co.	126
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U. S. Wood Preserving Co.	8
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Universal Road Machinery Co.	120

V

Valk & Murdoch Iron Works.	122
Van Winkle Gin & Machine Co.	126
Victor Manufacturing Co.	42
Vielle Manufacturing Co.	42
Vincent Bridge & Iron Co.	37
Vineer Wheel Co.	83
Vogi Machine Co., Henry.	8, 10
Voigtmann & Company.	42
Von Schon, H.	64
Voorhees Rubber Mfg. Co.	64
Vulcanite Portland Cement Co.	107
Vulcanite Portland Cement Co.	148

W

Wagner Electric Manufacturing Co.	145
Walker & Elliott	128
Wall Mfg. Supply Co., P.	46
Walsh & Weidner Boiler Co.	5
War Depart ment	93
Ward Machinery Co., Wm.	99
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Weirbrook Elevator Co.	21
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Western Home Nursery Co.	97
Westinghouse Electric & Manufacturing Co.	7
Westinghouse Machine Co.	7
West Pascagoula Cresotining Works.	45
West Virginia Rail Co.	*
Wetherill & Co., Inc., Robt.	5
Wheel Cond. & Zinc Co.	54
Wheeler Manufacturing Co., O. H.	44
Wheelock Engineering Co.	20
White, Gilbert G.	23
White & Co., J. G.	23
Whitlin Machine Works.	156
Whiting Foundry Equipment Co.	21
Whitney lie Spinning Ring Co.	189
Whitlock Coll Pipe Co.	132
Whitled & White, Inc.	28
Wickes Bros.	100
Williams, Arthur T.	91
Williams Bros.	132
Williams, G. O. H.	116
Williams Patent Crusher & Pulverizing Co., The.	122
Williams & Sons, I. B.	16
Williamson Bros. Co.	118
Wilmington Iron Works.	100
Wilson & Co., E. H.	102
Wittmann A. P.	124
Wisconsin Machinery & Mfg. Co.	99
Wolcott, Harry K.	52
Wolf Co., Fred W.	10
Wolf Co., The	53
Wolf & Sons.	121
Wood Co., R. D.	132
Wood Iron & Steel Co., Alan.	34
Wood Shovel & Tool Co., The.	28
Wood's sons Co., T. B.	16
Worthington, Henry R.	†
Wyckoff & Son Co., A.	128

Y

Yearley & Son, Alexander.	97
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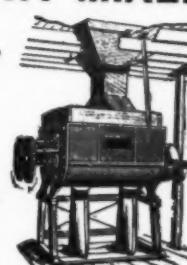
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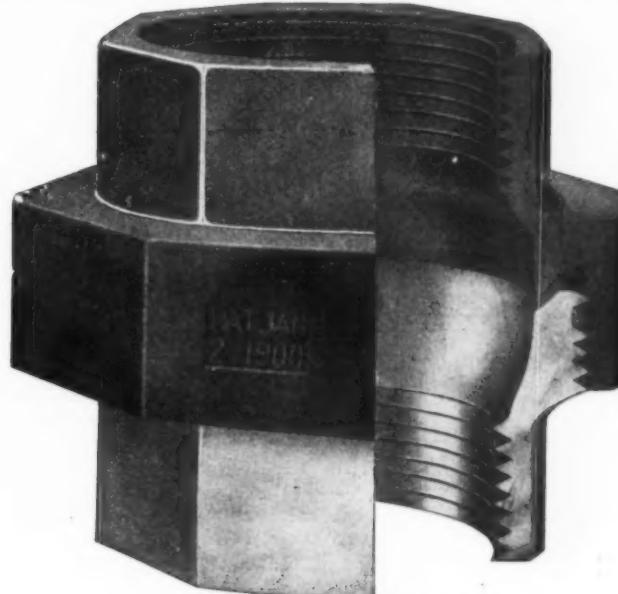
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LOCATION FOR TILE AND SEWER-PIPE PLANT.—Good town on Seaboard Air Line Railway offers a material suitable for the manufacture of tile and sewer pipe; material, coal site in immediate proximity to each other, with good railroad facilities. Address J. W. White, General Industrial Agent, Seaboard Air Line Railway, Norfolk, Va.

OVERALL FACTORY

OVERALL FACTORY.—Inducements to man who knows the business and has small capital will find splendid inducements at Temple, Texas; can interest local capital; salesmen can reach 2,000,000 people in six hours out of Temple; best distributing point in Central Texas. Address Wm. M. Woodall, Sec. Temple Commercial Club, Temple, Tex.

YARN MILL

YARN MILL WANTED at Navasota, Texas; situated in the most productive farming section of the State, with railroads radiating in eight different directions; inexhaustible supply of pure water; cheap fuel and labor; 200,000 bales cotton available annually; deep-water transportation; one of the healthiest localities, where the death rate is less than one per cent. Citizens offer substantial support to experienced, practical man. For particulars address J. J. Felder, Navasota, Texas.

COTTON MILLS

ARILENE, TEXAS, wants a cotton mill; inexhaustible supply of pure water; steam coal at \$1.50 per ton; splendid shipping facilities; near the geographical center of the State; one-quarter million bales of cotton produced within a radius of 45 miles of the last year. Address Abilene 25,000 Club, Box 537.

FEED AND IMPLEMENT STORE

FEED AND IMPLEMENT STORE.—Small town on main line of the Southern Railway, about 100 miles below Washington, is badly in need of a store handling grain, feed, flour, fertilizer, hay and farm implements. No suitable building available, but good lot can be secured at a reasonable price. Refer to File No. 11,184. M. V. Richards, Land and Industrial Agent, Southern Railway, Washington, D. C.

HOTELS WANTED

PLACE of 7000 people in Northwest Georgia, a springs and health resort, needs a larger and better hotel, the opportunities for which are good. Refer to File 8267. M. V. Richards, Land and Industrial Agent, Southern Railway, Washington, D. C.

SHOE FACTORY

SHOE FACTORY.—A shoe factory is wanted in a thriving city of 25,000 people, located in the Piedmont section of Virginia. A large building is available, which could easily be adapted for the purpose, the owners of which will take stock in the company. Refer to File 8176. M. V. Richards, Land and Industrial Agent, Southern Railway, Washington, D. C.

MISCELLANEOUS

DO YOU WANT

Water Power?

Cotton Mill?

Fruit and Vegetable Farm?

Poultry Farm?

Cattle Ranch?

Timber, Furniture or other Woodworking Plant? Summer or Winter Home, Hotel or Boarding-house? Auto. Transportation on Mountain Turnpike? If not these, state what you desire. We have it. Caldwell & Northern Railroad Co., Chester, S. C.

MARTINSBURG, W. VA.: Shenandoah Valley; 100 miles to Baltimore, 80 miles to coal regions; cheap gas, coal, labor and freight rates; on main line B. & O., also on Pennsylvania Railroad; offers exceptional facilities to factories; undeveloped resources require capital; prolific fruit and agricultural soil; unequalled climate; liberal and progressive municipal government. For further particulars address Board of Trade.

ARE YOU INTERESTED in securing location for industrial enterprises, such as electric-light plants, ice factories, broom factory, planing mills, overall factories, etc.? If so, address Homer D. Wade, Secretary Central West Texas Association, Commercial Clubs, Stamford, Texas.

WANTED AT ONCE—Manufacturing plants to locate at Dewey, Okla.; cheap gas and pure water plentiful; a \$1,000,000 plant already running; healthful climate; no malaria; cheap farm lands. Write J. K. Green, Dewey, Okla.

CISCO, TEXAS.—Cisco will offer good inducements to any and all kinds enterprises—cremery, broom-corn factory, cotton mill. Cisco is located at the junction of the Texas & Pacific and Texas Central railroads, and has ten passenger trains daily; splendid shipping facilities. From 20,000 to 30,000 bales of cotton marketed in Cisco annually. For further information write to Richard H. McCarty, Secretary Com. Club.

BELTON, TEXAS.—Centrally located in the "Factory District of Texas"; natural resources and advantages make splendid inducements for manufacturers; is town of solid foundations and growth; want to make it one of the best bucket-brigade towns in the State, and local people are willing to co-operate with outside capital in doing it; offers special inducements to experienced cotton-mill man of some means. Address Davis K. Doyle, Secretary Belton Commercial Club, Belton, Texas.

QUANAH, LEADING JOBBING CITY Northwest Texas; two wholesale grocery houses, two wholesale produce houses, one wholesale dry goods house; wants wholesale drug, furniture, shoe and implement houses. Great developing country; three railroads; magnificent opportunities. Address Chamber of Commerce, Quanah, Texas.

COTTON MILLS WANTED BY LAWTON, metropolis of Southern Oklahoma; special inducements offered for cotton mills, factories and wholesale houses of all kinds. Lawton is in the cotton belt, far from cotton mills and jobbing centers; ideal climatic conditions; vast tributary country; abundance of best quality of pure mountain water; natural distributing point; eight years old; 10,000 people; capital of Comanche county. Lawton has nine different U. S. Government institutions, each enlarging; five diverging railroads; more building. For special information write Secretary of Chamber of Commerce, Lawton, Okla.

INDUSTRIAL LOCATIONS.—Good town of over 500 people, on line of the Southern Railway, in James county, East Tennessee, having a bank, will give free sites to factories locating there; water facilities fine; town growing rapidly. Refer to File 33,912. M. V. Richards, Land and Industrial Agent, Southern Railway, Washington, D. C.

MANUFACTURING INTERESTS of all kinds seeking sure and safe investments and worthy financial inducements should address Will L. Vining, Secretary of the Austin Business League, Austin, Texas; a town with its future right now in hand and one that is willing to divide with the manufacturer worthy of consideration. Write them at once. All questions answered cheerfully and promptly.

TUPELO, MISSISSIPPI, offers exceptional opportunities for a corn mill, supply store, the plant, shirt and overall factory (denim and shirting made here), alfalfa mill, etc. Also want wholesale notion and dry-goods house, brick plant. Tradesmen and artisans will find many trades not represented in this progressive city. Local interest in worthy enterprises. Has two lines of railway, Frisco and Mobile & Ohio; new road surveyed and bonds voted for it. Wholesale trade now million annually. Large territory to draw from. Best diversified farming country in Miss. Whites in majority. Farmers now ship alfalfa, poultry, stock. Lands reasonable. Good schools, neighbors and water. If you are looking for a location, investigate Tupelo. Get book of facts. Tupelo is in northeast Mississippi. Unexcelled climate. Address Secretary Business Club, Tupelo, Miss.

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